



# THE CFT TILE BOOK

EDITION 2023.280

*The information contained in these documents is confidential, privileged and only for the information of the intended recipient and may not be used, published or redistributed without the prior written consent of Center for Testmaterials.*



## Introduction

This sample book shows examples and results achieved with the only available commercial set of Dishwash Monitors for Detergent Performance Testing.

In the late 90's CFT produced a lot of soiled dishes for her customers according to different standards, like the IKW-standard. This kind of production is used to be done in-house by the end-users or the test institutes. We started to develop our own range of materials because of the difficulty and expense to send the plates and cups across long distances. CFT felt that this production was very labour intensive and we wanted to serve all our customers and not only the ones close by. This led to the introduction of our Dishwash Testmaterials range.

Currently our range of different soils available has been widely expanded. The set of tiles that we offer is especially suitable to do reliable screenings. The CFT Dishwash Method is not a full replacement, but it can certainly help you save a lot of time, effort and money by running smaller scale IKW or other labour intensive test runs. Another advantage of the tiles is that they are lightweight, unbreakable and very reproducible.

This book contains the following parts: a description how to use this book, an index of our testmaterials, product sheets with a full description of our testmaterials for different testing purposes and an application legend.

Feel free to contact us if you have any remaining questions.

### **Center For Testmaterials B.V.**

Stoomloggerweg 11  
3133 KT Vlaardingen  
The Netherlands  
+31 (0)10 460 39 55  
info@cftbv.nl  
<https://www.cftbv.nl>

## How to use this Tile Book

The picture below is an example of the left side of a product sheet of one of our Tiles.

**1**

**DM-03**

**2**

**Shepherd's pie, baked**

**3**



**Discriminative Power:** ★★☆☆☆

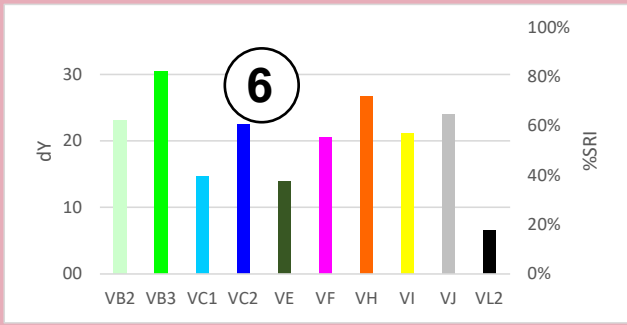
**Reproducibility Ratio:** ★★★★★

**Reliability Ratio:** ★★★★★

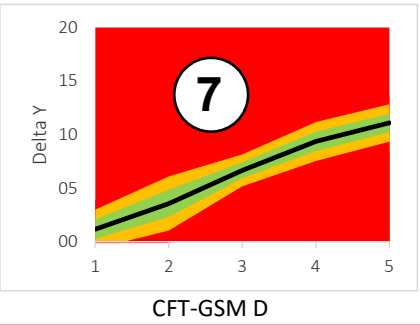
**Popularity:** **4** ★★★★★


Order code:	Substrate:	Dimensions in mm	Yu:
DM-03	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-03	Technical Porcelain (DT H)	120 x 100 x 1	87,2

**Autodish detergent comparison**

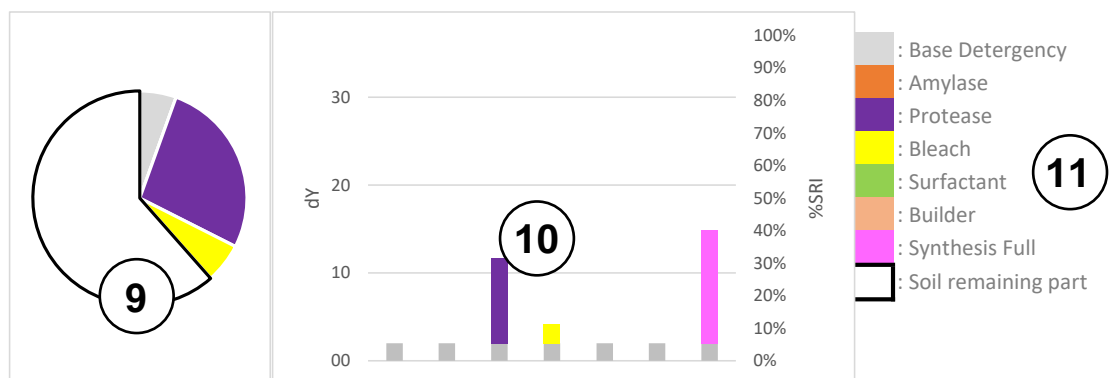


**Quality Control**





VB2 VB3 VC1 VC2 VE VF VH VI VJ VL2





1. The CFT article code of the soiled tile on the main substrate.
2. Soil name.
3. Example of the standardized testmaterial.

#### 4. Discriminative Power Auto Dishwash

Discriminative Power Index (1-5 stars):

$$\frac{\sqrt{\sum_{i=1}^{n-1} \sum_{j=i+1}^n (1 - T_{(\mu_i = \mu_j)}) * ABS(\mu_i - \mu_j)}}{c}$$

CFT developed this way of quantifying the Discriminative Power of a Testmaterial several years ago. It is based on the sum of the significance (Student T-Test) of all different results (in  $\Delta Y$ ) times the size of this difference. This is scaled to a 5 star ratio.

#### Reproducibility Ratio

The Reproducibility Ratio (1-5 stars) indicates the consistency of the soiled Y-values (Ys) within a batch, scaled on a ratio from 1 to 5 stars

#### Reliability Ratio Auto Dishwash

Reliability Ratio (1-5 stars):

The Reliability Ratio indicates the consistency of the repetitions in  $\Delta Y$  over the average cleaning levels (Avg(Yw)). Indicates the consistency of results between repetitions, scaled on a ratio from 1 to 5 stars.

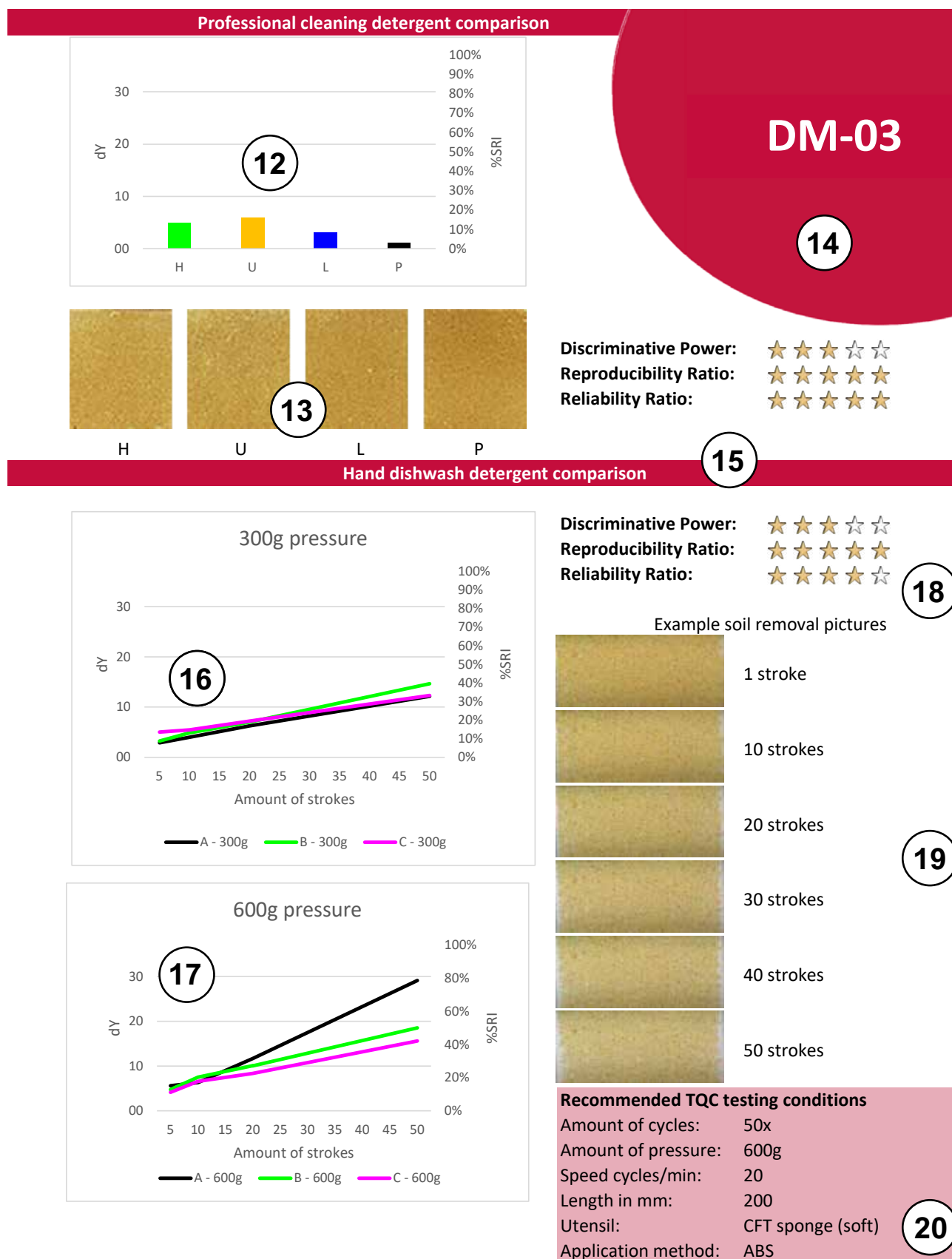
#### Popularity

Popularity of product based on sales records.

5. Table with the order codes of this stain on different substrates. Also shows the dimensions & Yu (Y-unsoiled) value of the different substrates.
6. Soil removal graph for every used commercial auto dishwash detergent.
7. Detergent dosage response & QC graph, including our thresholds for approval.
8. Results after washing the tiles with used commercial auto dishwash detergent.
9. Detergent component response circle diagram.
10. Detergent component response graph.
11. Legend of detergent component response table and circle diagram.

## How to use this Tile Book

The picture below is an example of the right side of a product sheet of one of our Tiles.



12. Soil removal graph for each used professional dishwash detergent.
13. Results after washing tiles with four different professional dishwash detergents.
14. CFT article code.

#### 15. Discriminative Power Professional Dishwash Detergent

Discriminative Power Index (1-5 stars):

$$\frac{\sqrt{\sum_{i=1}^{n-1} \sum_{j=i+1}^n (1-T_{(\mu_i=\mu_j)}) * ABS(\mu_i=\mu_j)}}{c}$$

CFT developed this way of quantifying the Discriminative Power of a Testmaterial several years ago. It is based on the sum of the significance (Student T-Test) of all different results (in  $\Delta Y$ ) times the size of this difference. This is scaled to a 5 star ratio.

#### Reproducibility Ratio Professional Dishwash Detergent

The Reproducibility Ratio (1-5 stars) indicates the consistency of the soiled Y-values (Ys) within a batch, scaled on a ratio from 1 to 5 stars

#### Reliability Ratio Professional Dishwash Detergent

Reliability Ratio (1-5 stars):

The Reliability Ratio indicates the consistency of the repetitions in  $\Delta Y$  over the average cleaning levels (Avg(Yw)). Indicates the consistency of results between repetitions, scaled on a ratio from 1 to 5 stars.

16. Soil removal percentage of mimicking hand dishwashing with 300 grams weight.
17. Soil removal percentage of mimicking hand dishwashing with 600 grams weight.

#### 18. Discriminative Power Hand Dishwash Detergent

Discriminative Power Index (1-5 stars):

$$\frac{\sqrt{\sum_{i=1}^{n-1} \sum_{j=i+1}^n (1-T_{(\mu_i=\mu_j)}) * ABS(\mu_i=\mu_j)}}{c}$$

CFT developed this way of quantifying the Discriminative Power of a Testmaterial several years ago. It is based on the sum of the significance (Student T-Test) of all different results (in  $\Delta Y$ ) times the size of this difference. This is scaled to a 5 star ratio.

#### Reproducibility Ratio Hand Dishwash Detergent

The Reproducibility Ratio (1-5 stars) indicates the consistency of the soiled Y-values (Ys) within a batch, scaled on a ratio from 1 to 5 stars

#### Reliability Ratio Hand Dishwash Detergent

Reliability Ratio (1-5 stars): The Reliability Ratio indicates the consistency of the repetitions in  $\Delta Y$  over the average cleaning levels (Avg(Yw)). Indicates the consistency of results between repetitions, scaled on a ratio from 1 to 5 stars.

19. Example soil removal pictures per amount of strokes.
20. Recommended TQC Sheen testing conditions for used Soiled CFT Tile. CFT has different detergent application methods:
 

<b>ABS</b>	Absorption of detergent in sponge
<b>AC</b>	Applying detergent on cloth
<b>AS</b>	Applying detergent on substrate
<b>SOAK</b>	Soak tile in detergent solution

## INDEX

Code	Description	
DM-01	Lasagne Bolognese	10
DM-03	Shepherd's pie, baked	12
DM-04A	Carbonara sauce	14
DM-04B	Spaghetti carbonara	16
DM-06	Cheese, baked	18
DM-07	Spaghetti Bolognese sauce with cheese	20
DM-08	Cheese, baked, double soil load	22
DM-10	Crème brûlée, baked	24
DM-11	Tea	24
DM-12	Tea with milk	28
DM-14	Highly discriminative tea	30
DG-15	Lipstick	32
DM-21	Egg yolk	34
DM-22	Egg yolk, double soil load	36
DM-23	Egg yolk, 1.5x soil load	38
DM-24	Egg yolk, 0.75x soil load	40
DM-25	Boiled egg yolk, based on IKW protocol	42
DM-26	Full egg	44
DM-31	Egg yolk with milk	46
DM-32	Egg yolk with milk, double soil load	48
DM-33	Egg yolk with milk, 1.5x soil load	50
DM-34	Egg yolk with milk, 0.75x soil load	52
DM-40X	Olive oil with pigment	54
DM-42	Blueberry yoghurt	56
DM-44	IKW hand dish soil Normal	58
DM-45	Fat mix with food colourant	60
DM-46	Gravy	62
DS-47	Baked on grease	64
DM-51	Red wine	66
DM-54	Oatmeal, coloured with chocolate	68
DM-60	Spinach	70
DM-62	Curry	72
DM-63	Chicken Biryani	74
DM-71	Mixed (corn/rice) starch, coloured with food colourant	76
DM-73	Barilla pasta, coloured with food colourant	78
DM-75	Chocolate pudding	80
DM-76	Corn starch, coloured	82
DM-176	Corn starch, coloured, extra severe	84
DM-276	Corn starch, coloured, double soil load	86
DM-376	Corn starch, coloured, triple soil load	88
DM-476	Corn starch, coloured, heavy load extra stubborn	90
DM-77	Mixed (corn/rice) starch, coloured	92
DM-177	Mixed (corn/rice) starch, coloured, extra severe	94
DM-277	Mixed (corn/rice) starch, coloured, double soil load	96
DM-377	Mixed (corn/rice) starch, coloured, triple soil load	98
DM-477	Mixed (corn/rice) starch, coloured, heavy load extra stubborn	100
DM-78	Rice starch, coloured	102
DM-178	Rice starch, coloured, extra severe	104
DM-278	Rice starch, coloured, double soiled	106
DM-378	Rice starch, coloured, triple soil load	108
DM-79	Potato starch, coloured	110
DM-81	Coffee	112
DM-82	Espresso coffee	114

Code	Description	
DM-83	Coffee with milk	116
DM-91	Minced meat	118
DM-92	Minced meat, double soil load	120
DM-93	Minced meat, triple soil load	122
DT-94	Vegan Beyond meat	124
DM-96	Minced meat with fat, triple soil load	126
DS-105	Heavily burnt on pasta and cheese	128
DS-106	Heavily burnt on cheese sauce	130
DS-146	Heavily burnt on gravy	132
DC-30	Highly discriminative soap scum	134
DM-40	All-purpose cleaner soil based on IKW protocol	135
DS-48	Oven cleaner stain	136
DC-57	Calcium stearate, based on IKW recommend. for bathroom cleaners	137



#### DM-Series

The DM-Series was initially developed for Automatic Dishwash testing. This will reflect in the suitability of these tiles for other applications. Nevertheless some of these tiles are also very suitable for handdish liquid formulation experiments, especially in combination with our CFT developed test method using a TQC Sheen Washability Tester. Recently we have also identified which tiles are suitable for use in professional I&I dishwash tests.

# DM-01

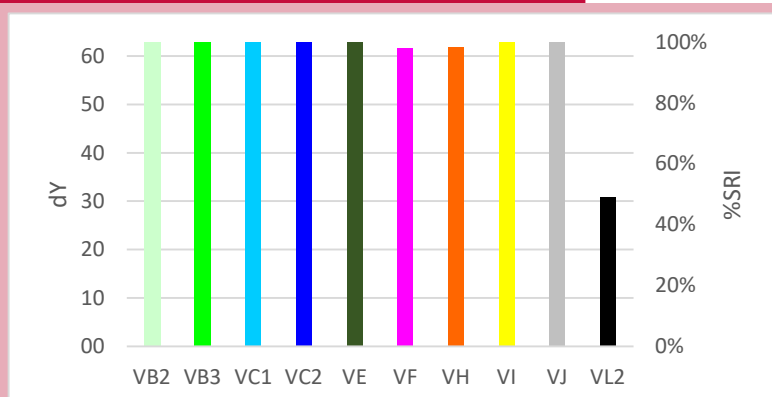
## Lasagne Bolognese



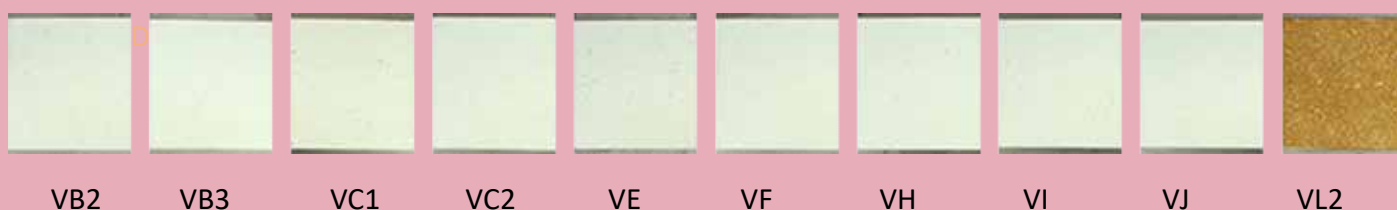
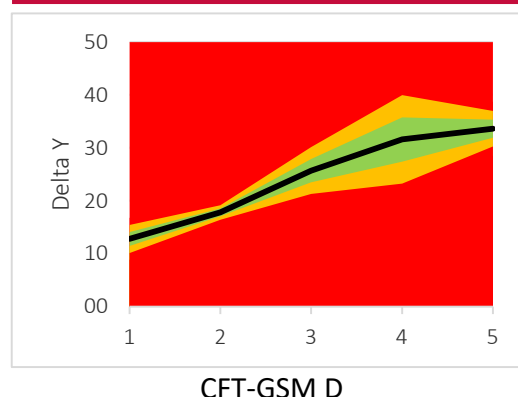
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★★☆☆  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-01	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-01	Technical Porcelain (DT H)	120 x 100 x 1	87,2

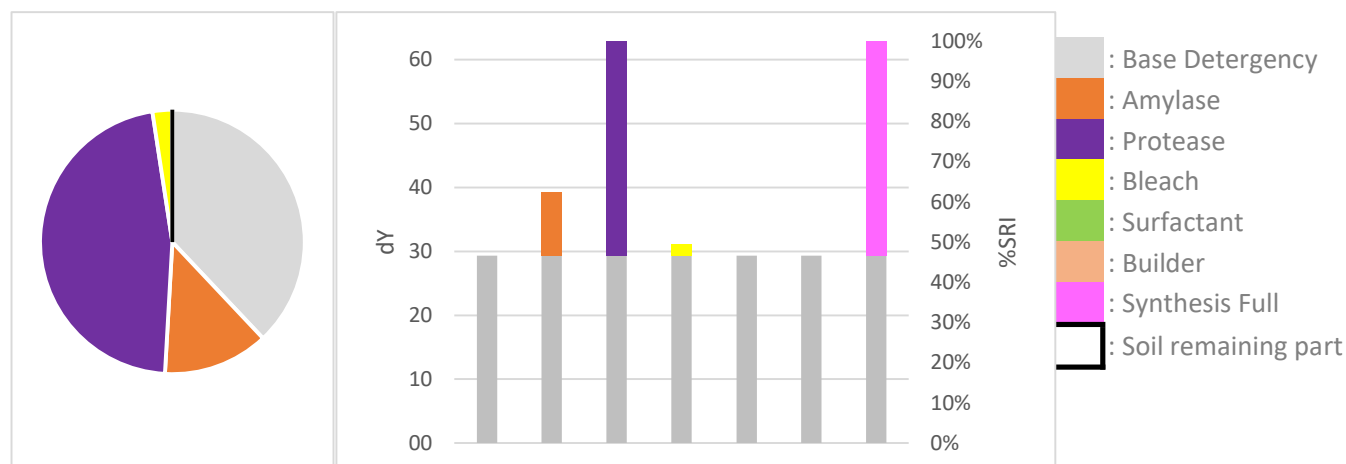
### Autodish detergent comparison



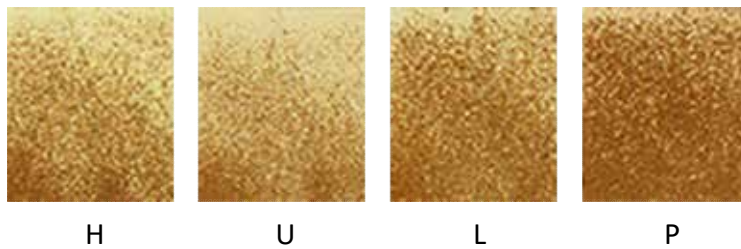
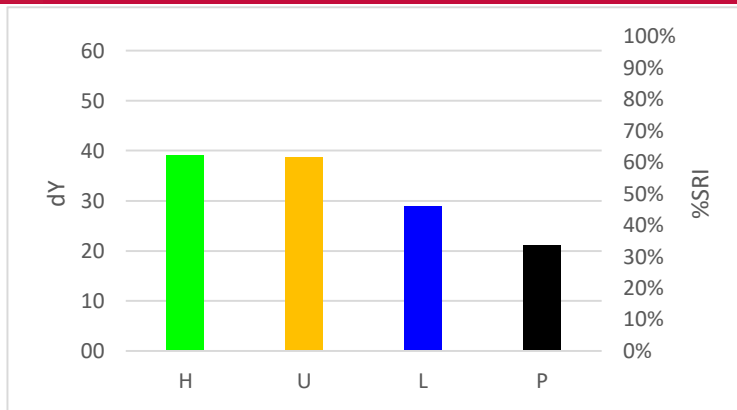
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-01

**Discriminative Power:**



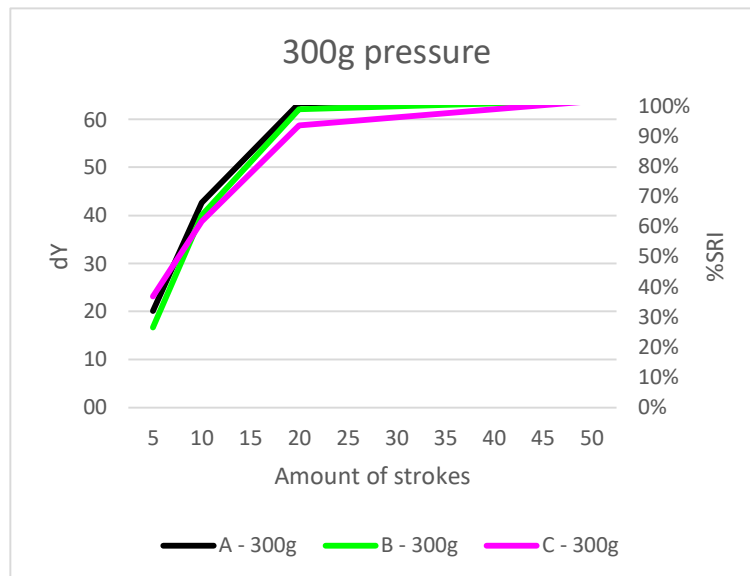
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke



10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 5x

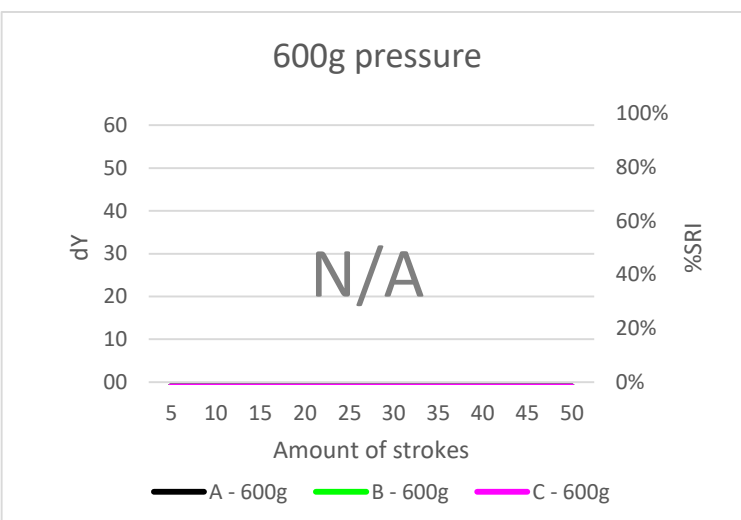
Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS





# DM-03

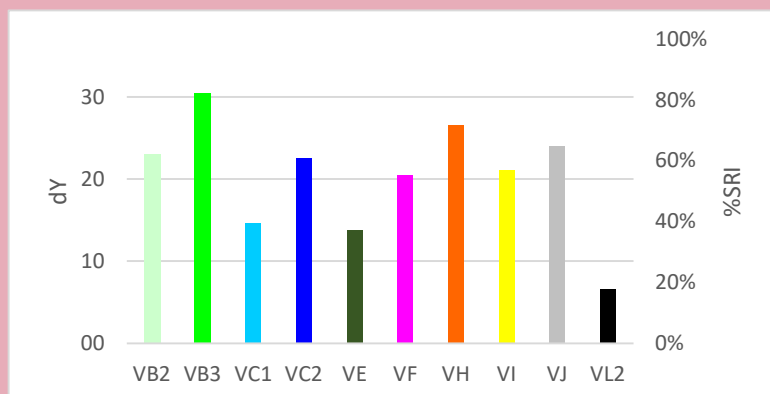
## Shepherd's pie, baked



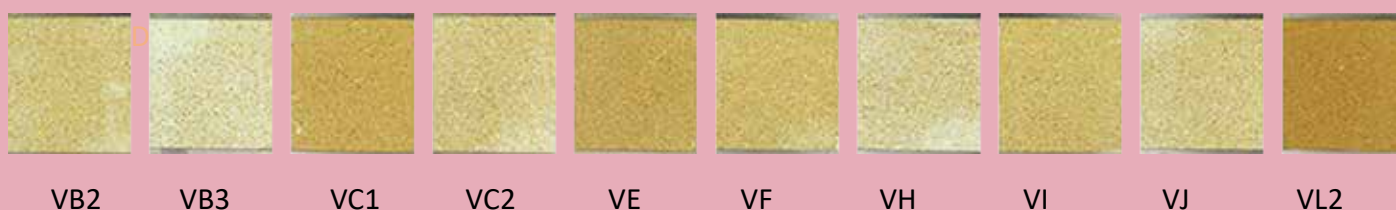
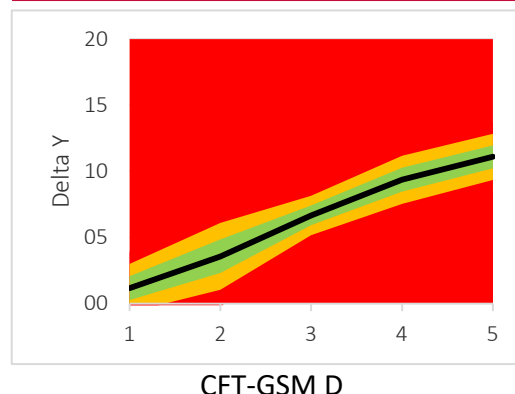
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-03	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-03	Technical Porcelain (DT H)	120 x 100 x 1	87,2

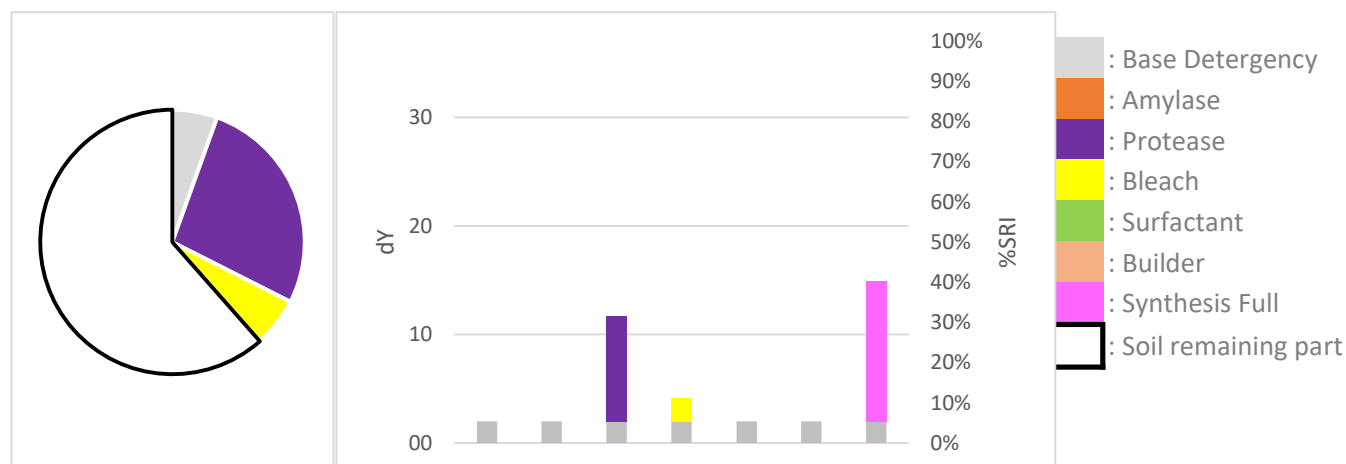
### Autodish detergent comparison



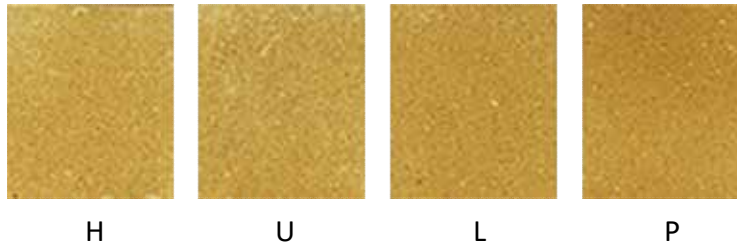
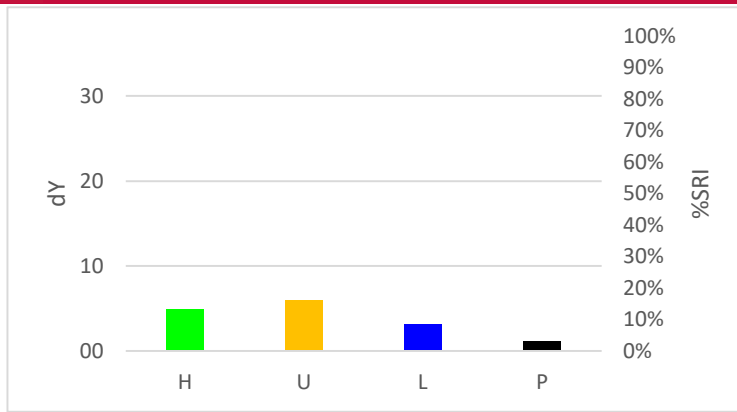
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**DM-03**

**Discriminative Power:**



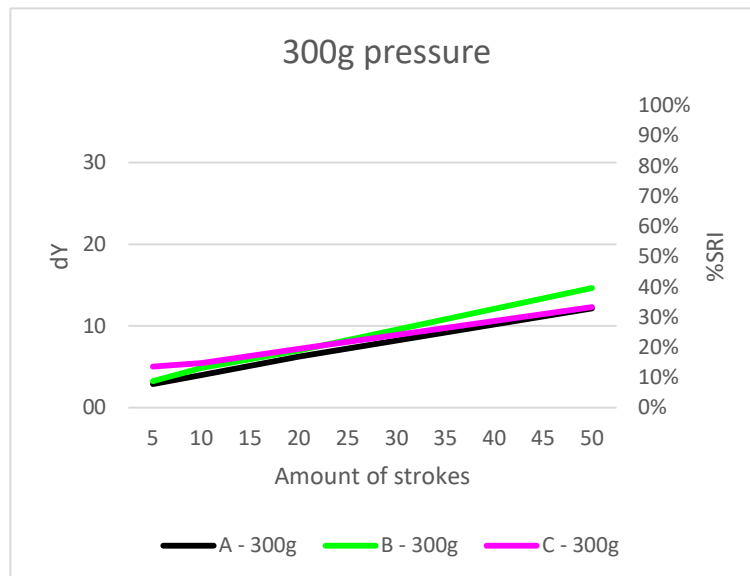
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke



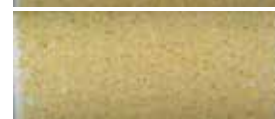
10 strokes



20 strokes



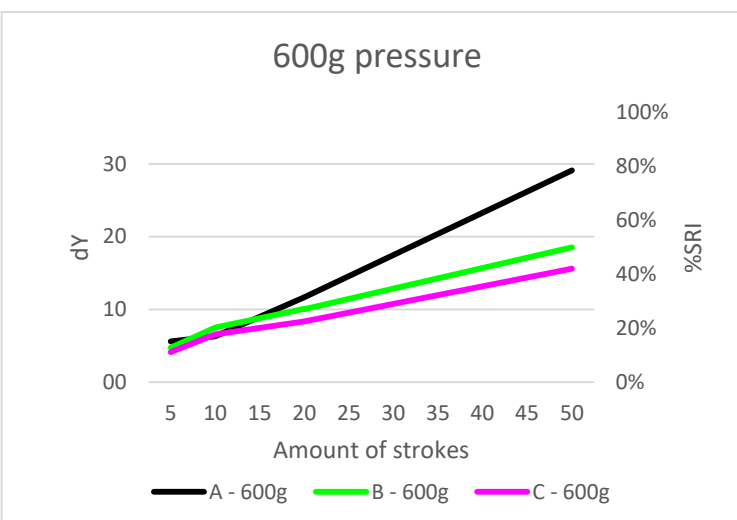
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-04A

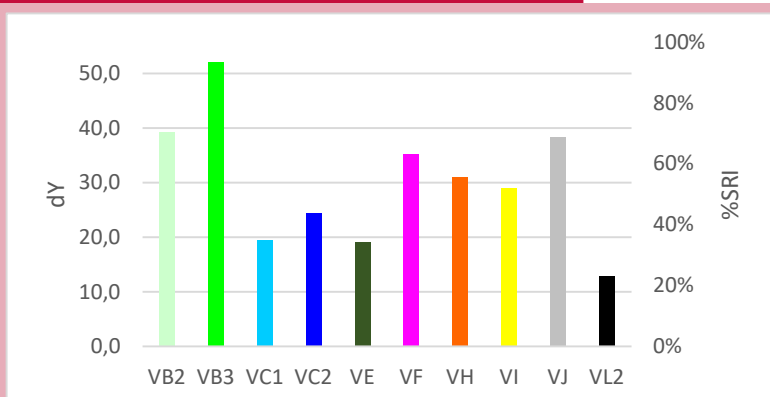
## Carbonara sauce



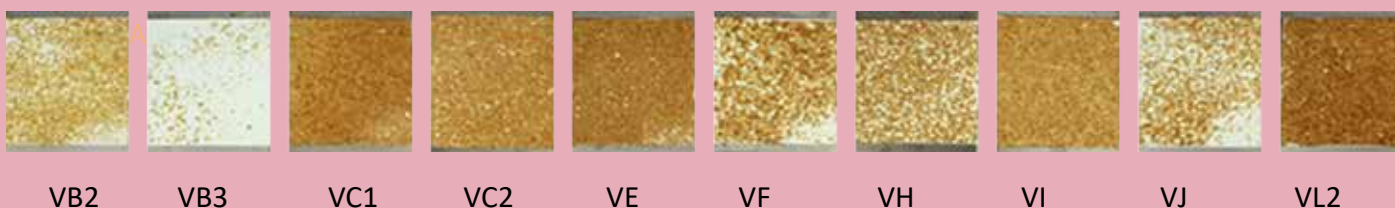
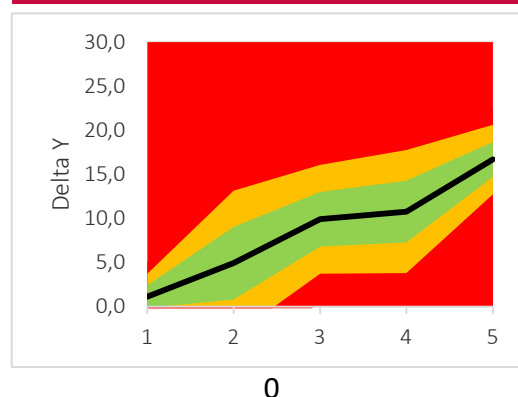
Discriminative Power: ★★★★★  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-04A	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-04A	Technical Porcelain (DT H)	120 x 100 x 1	87,2

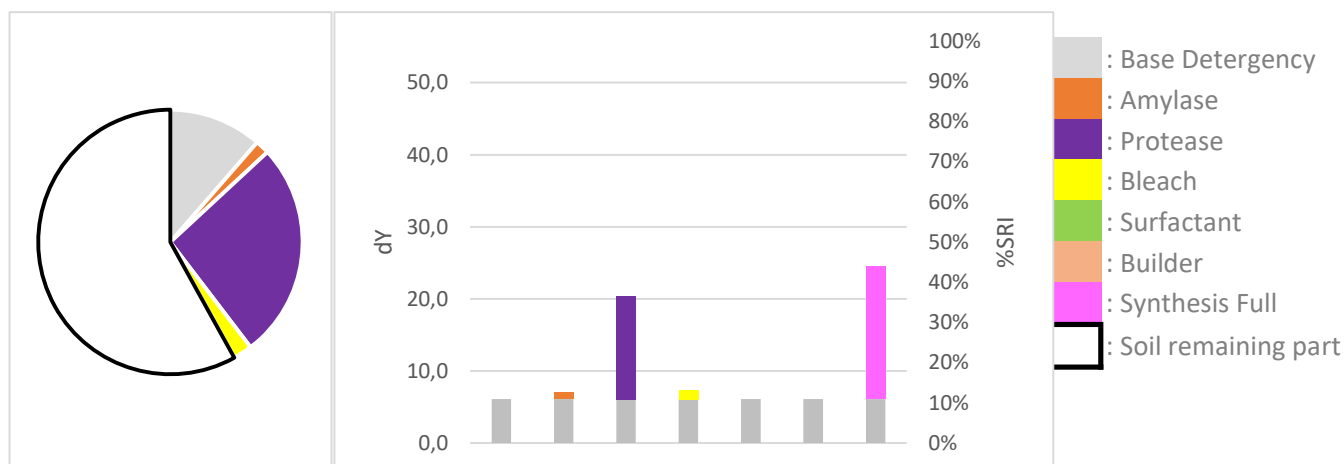
### Autodish detergent comparison



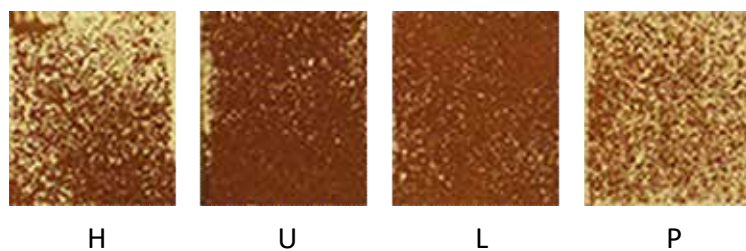
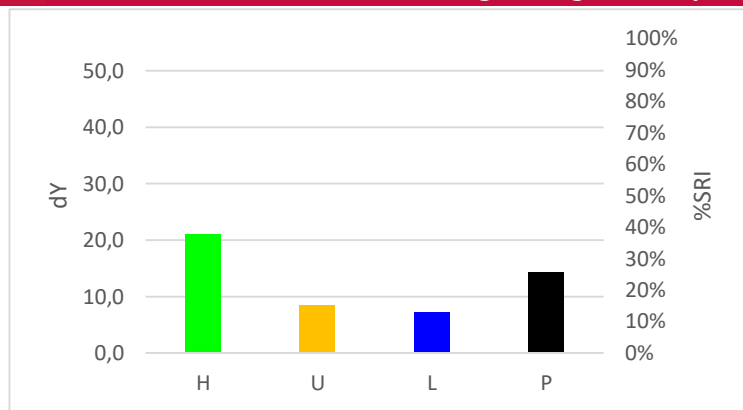
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-04A

**Discriminative Power:**



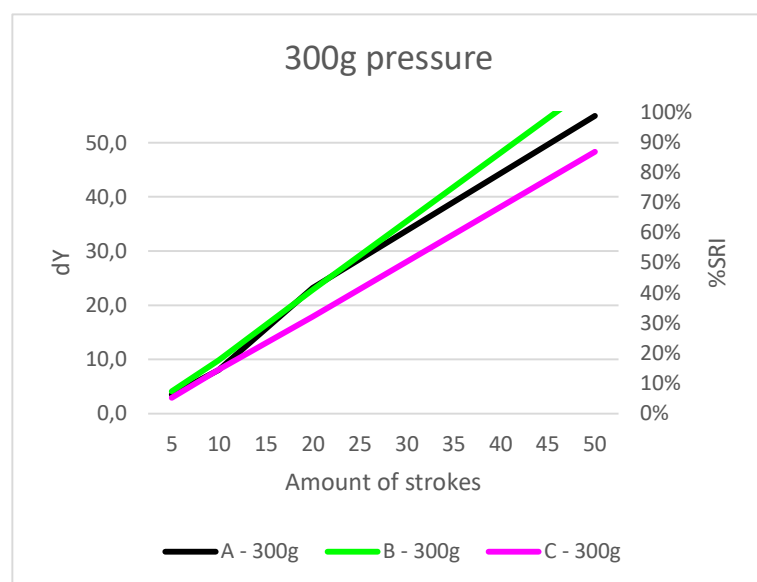
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke



10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 50x

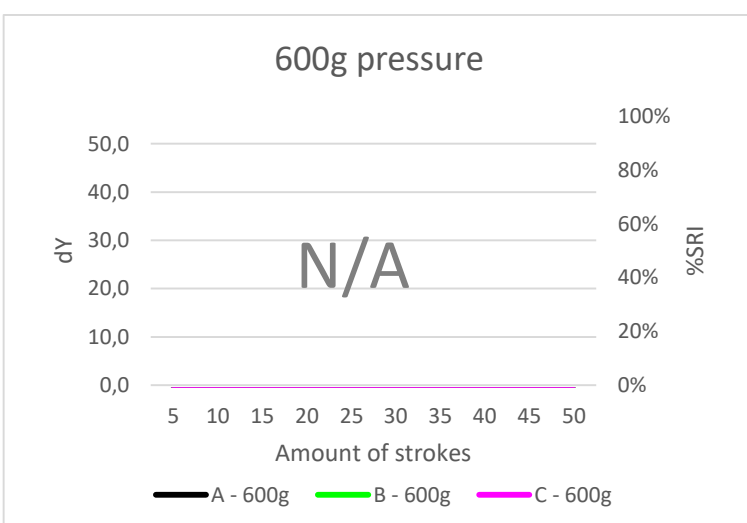
Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS



# DM-04B

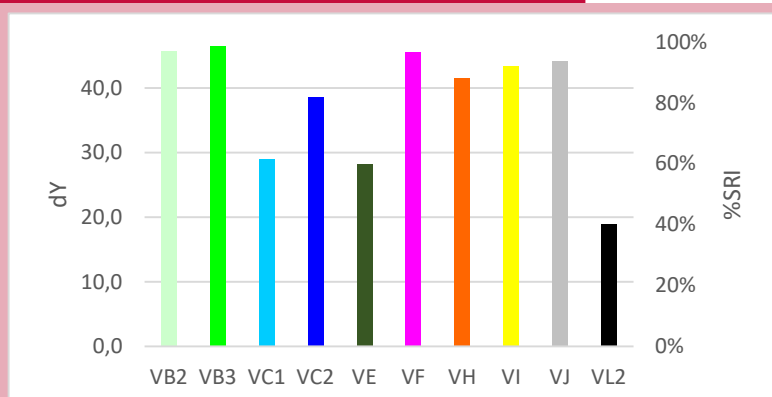
## Spaghetti carbonara



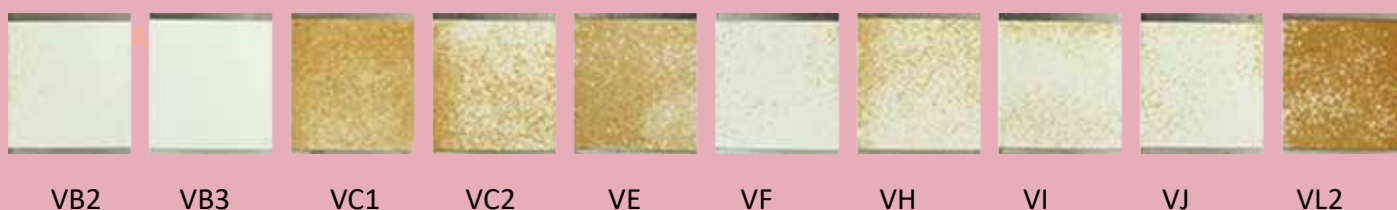
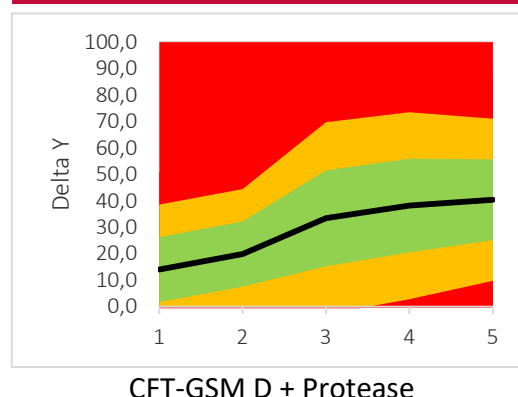
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-04B	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-04B	Technical Porcelain (DT H)	120 x 100 x 1	87,2

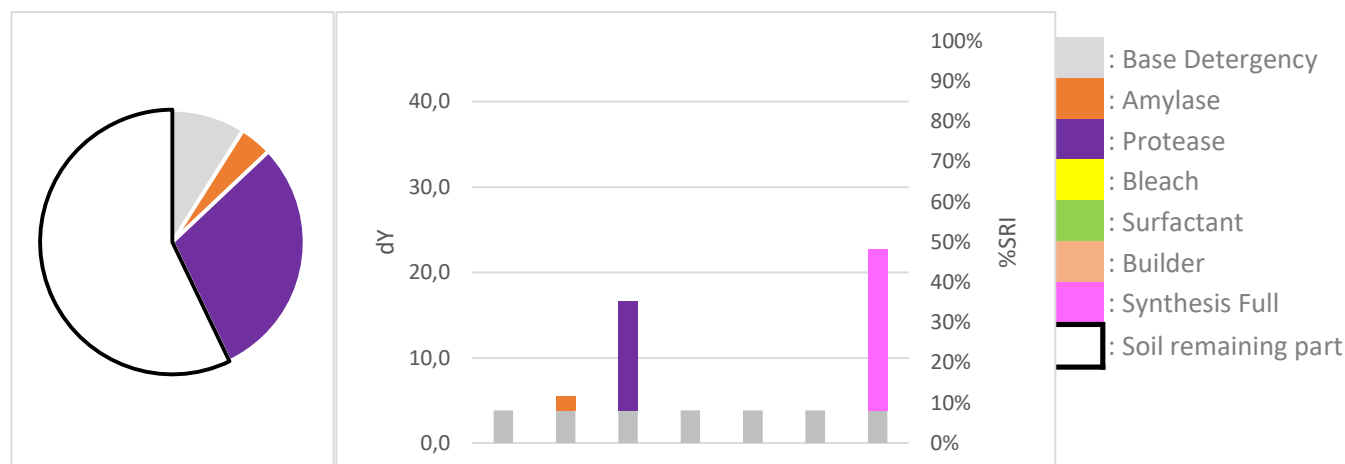
### Autodish detergent comparison



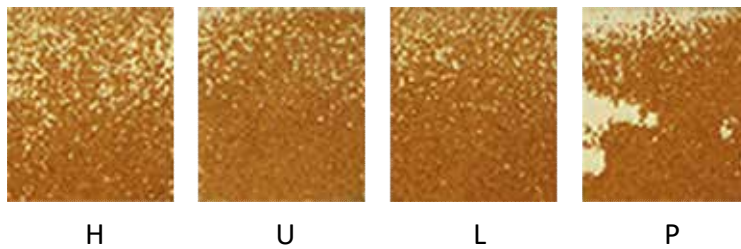
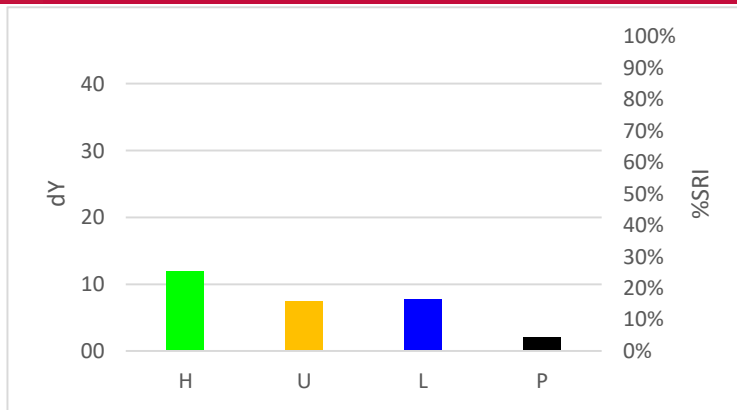
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-04B

**Discriminative Power:**



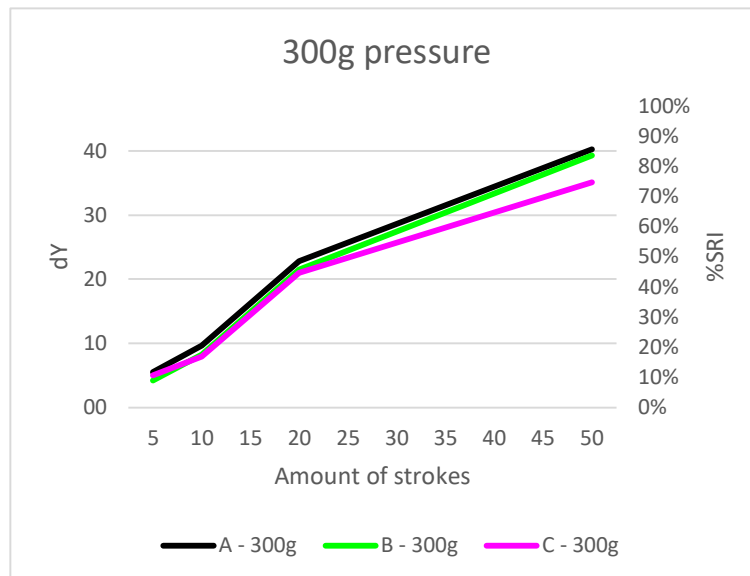
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke



10 strokes



20 strokes



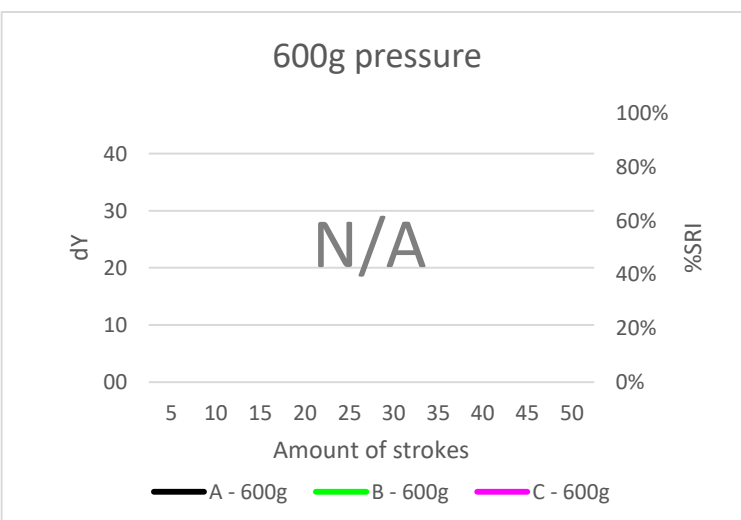
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS



# DM-06

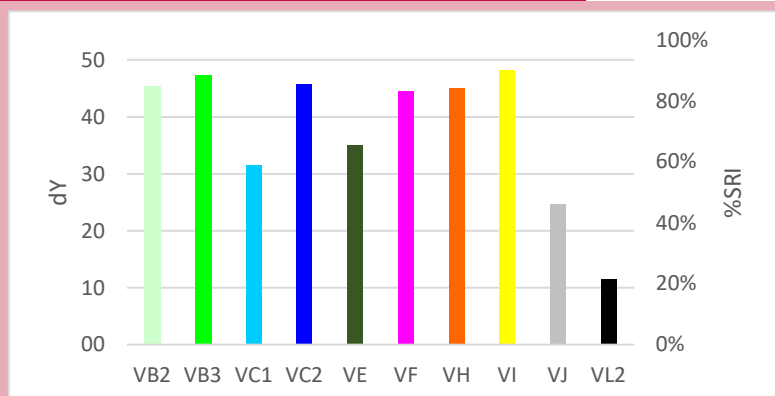
## Cheese, baked



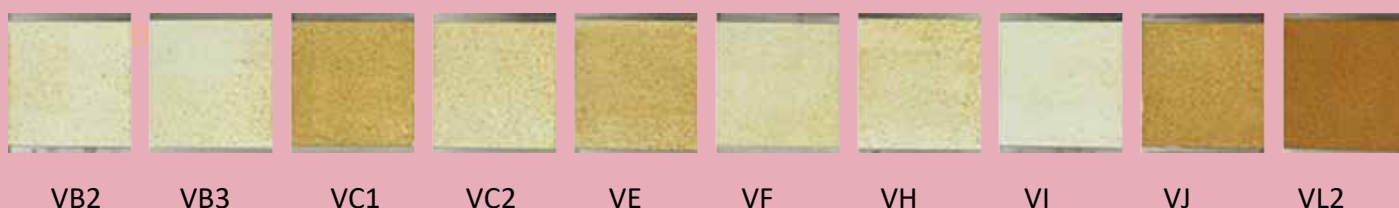
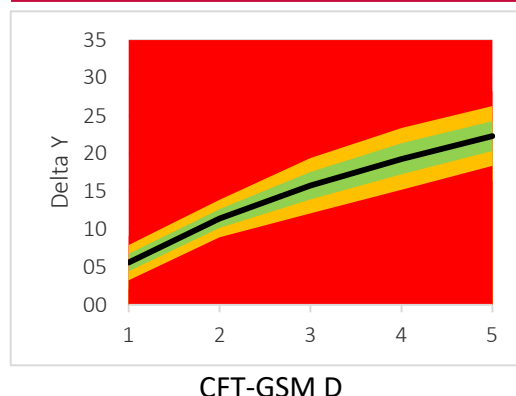
Discriminative Power: ★★★★★  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-06	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-06	Technical Porcelain (DT H)	120 x 100 x 1	87,2

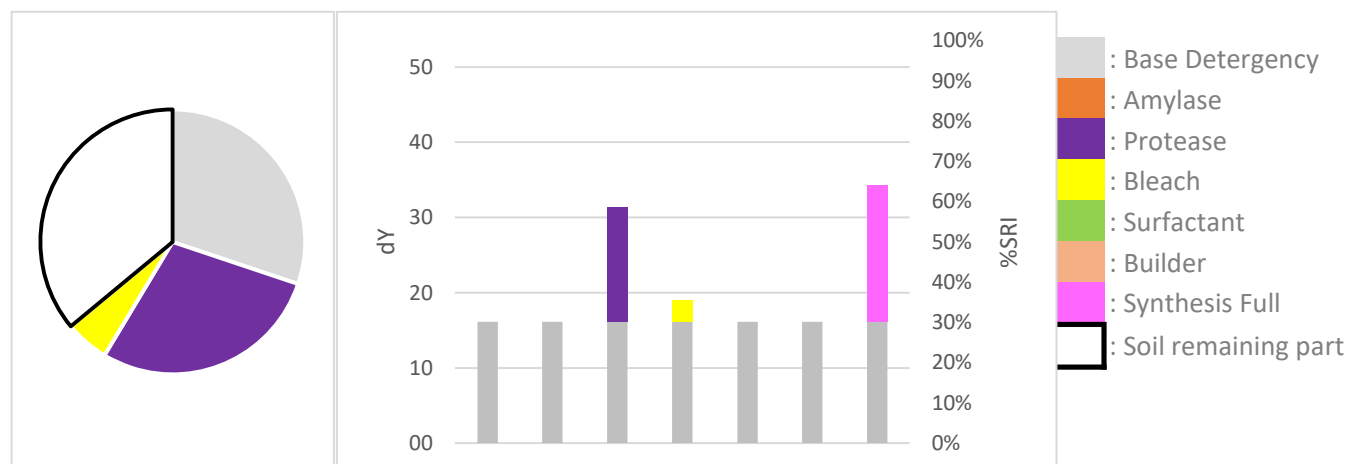
### Autodish detergent comparison



### Quality Control

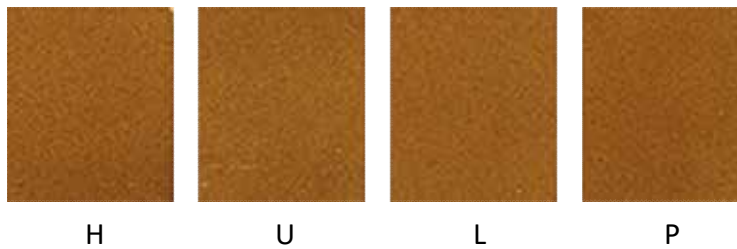
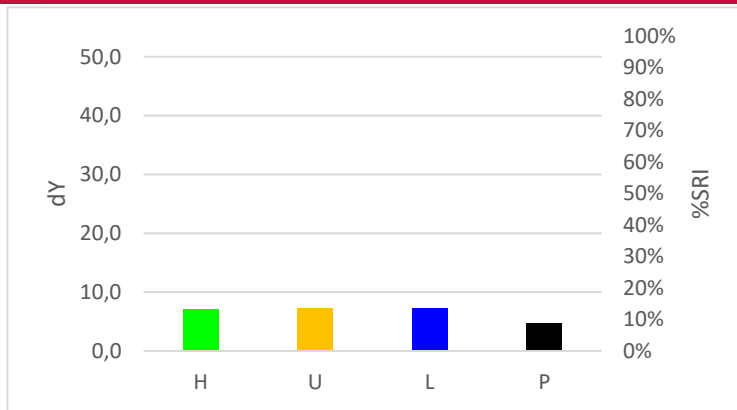


### Autodish detergent component response





## Professional cleaning detergent comparison



**DM-06**

**Discriminative Power:**



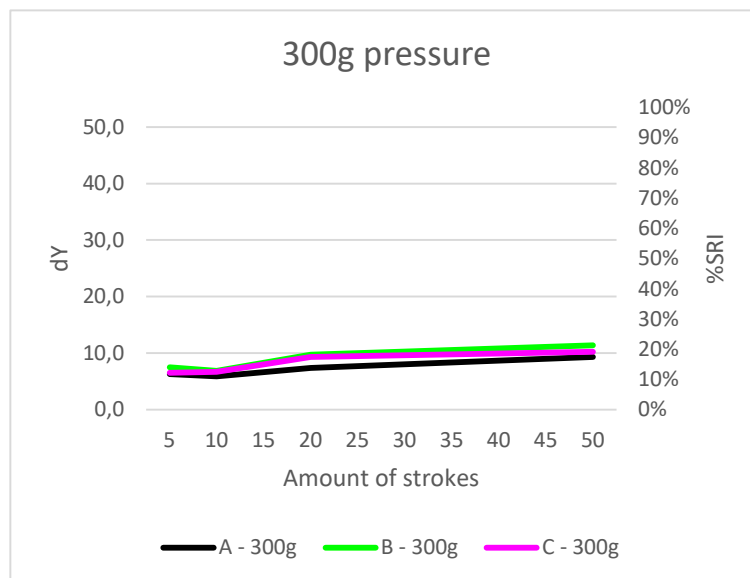
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



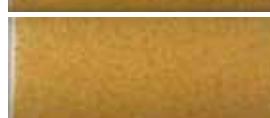
Example soil removal pictures



1 stroke



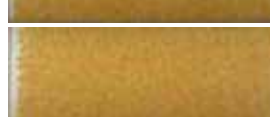
10 strokes



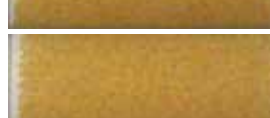
20 strokes



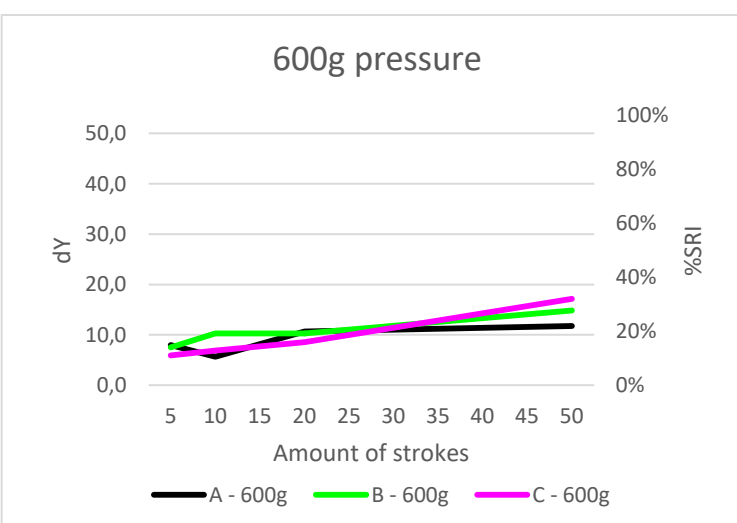
30 strokes



40 strokes



50 strokes



**Recommended TQC testing conditions**

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-07

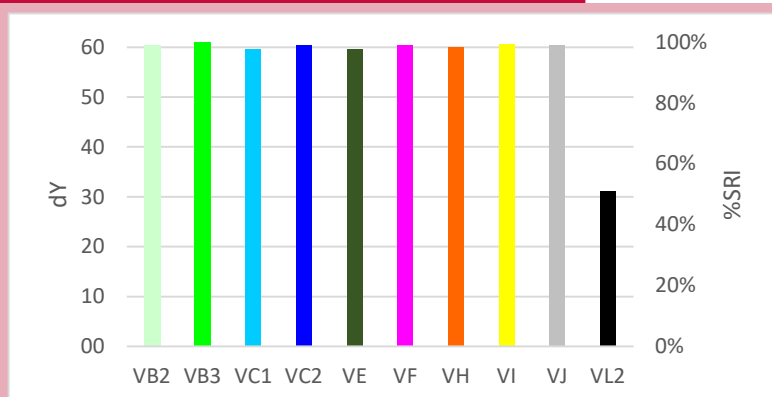
## Spaghetti Bolognese sauce with cheese



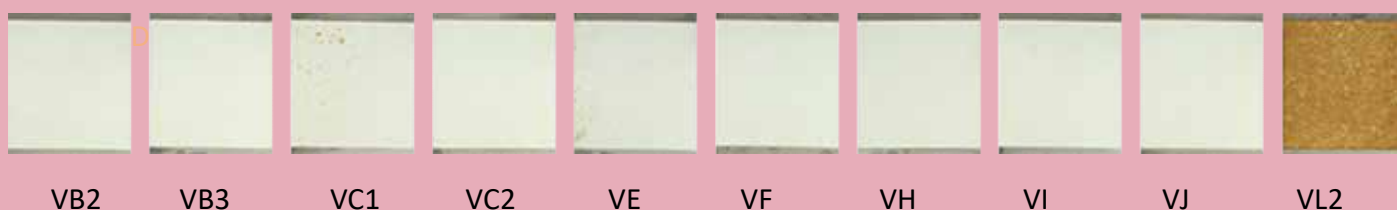
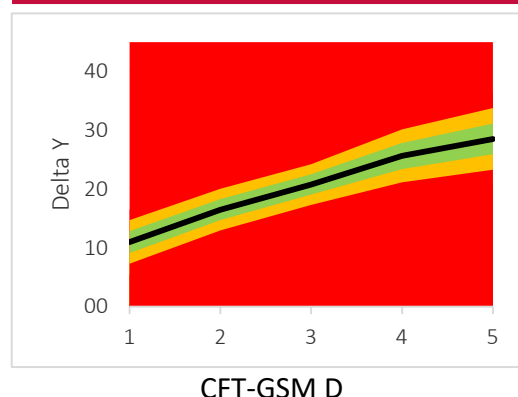
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-07	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-07	Technical Porcelain (DT H)	120 x 100 x 1	87,2

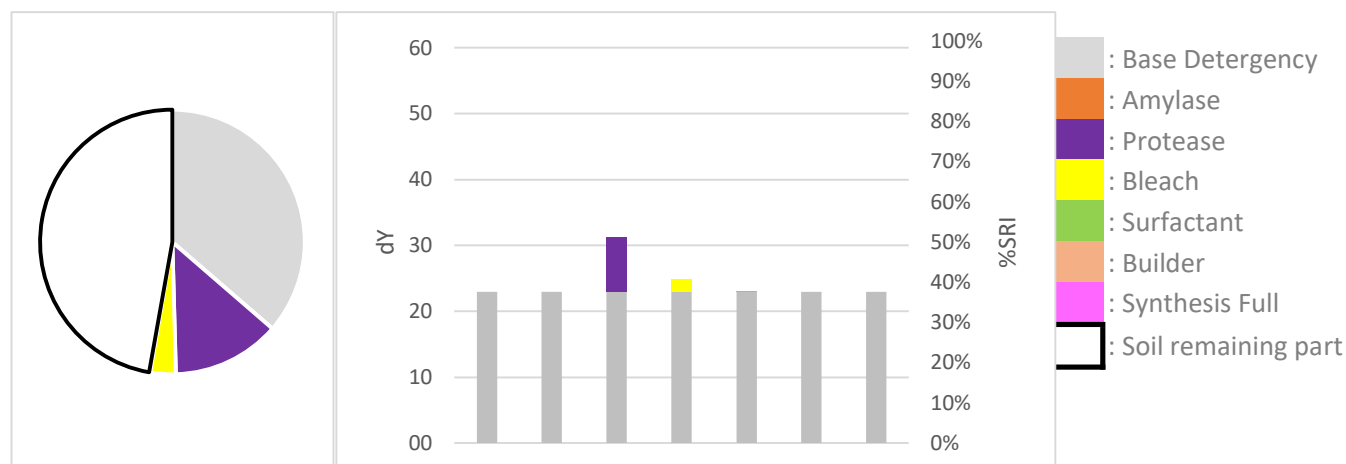
### Autodish detergent comparison



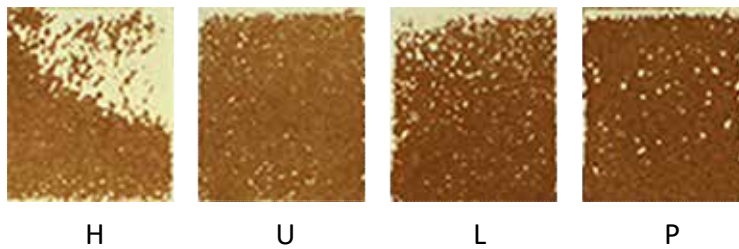
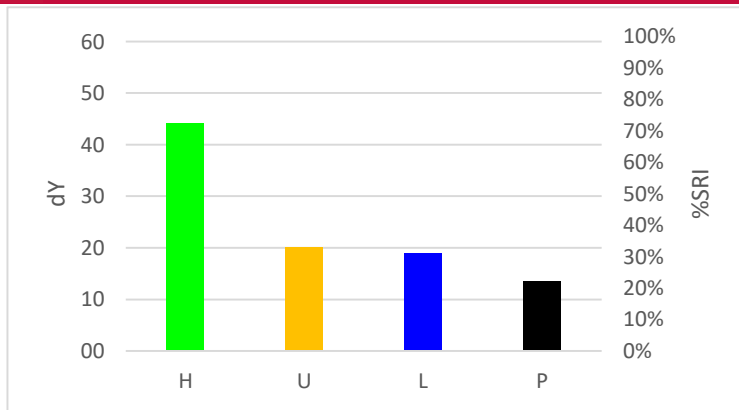
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-07

**Discriminative Power:**



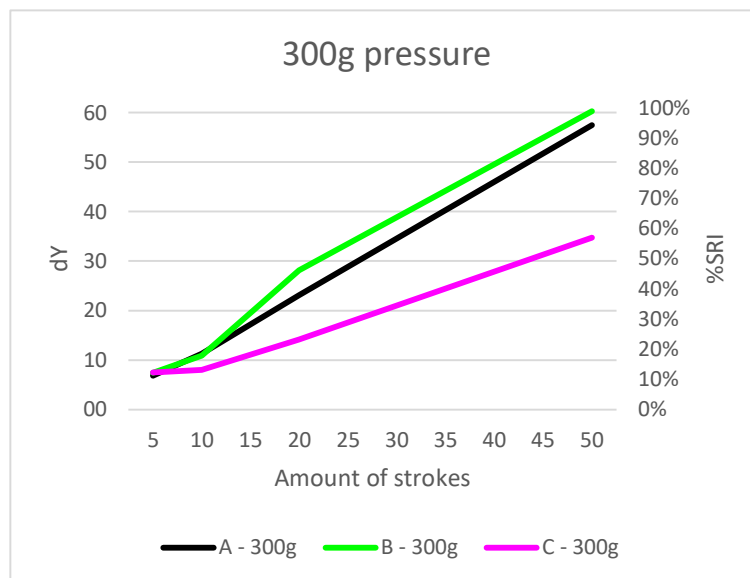
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke



10 strokes



20 strokes



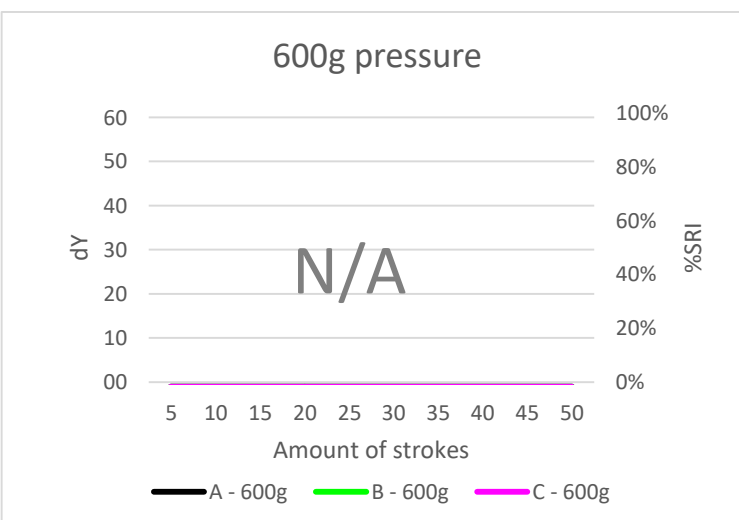
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-08

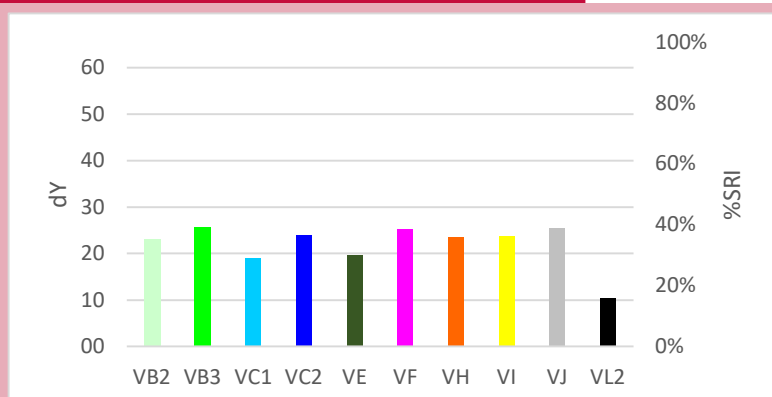
## Cheese, baked, double soil load



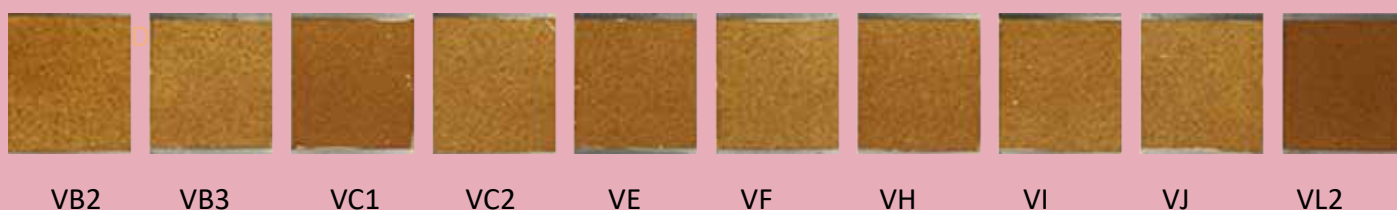
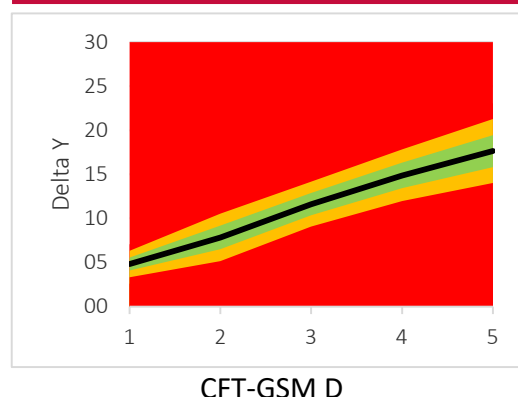
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-08	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-08	Technical Porcelain (DT H)	120 x 100 x 1	87,2

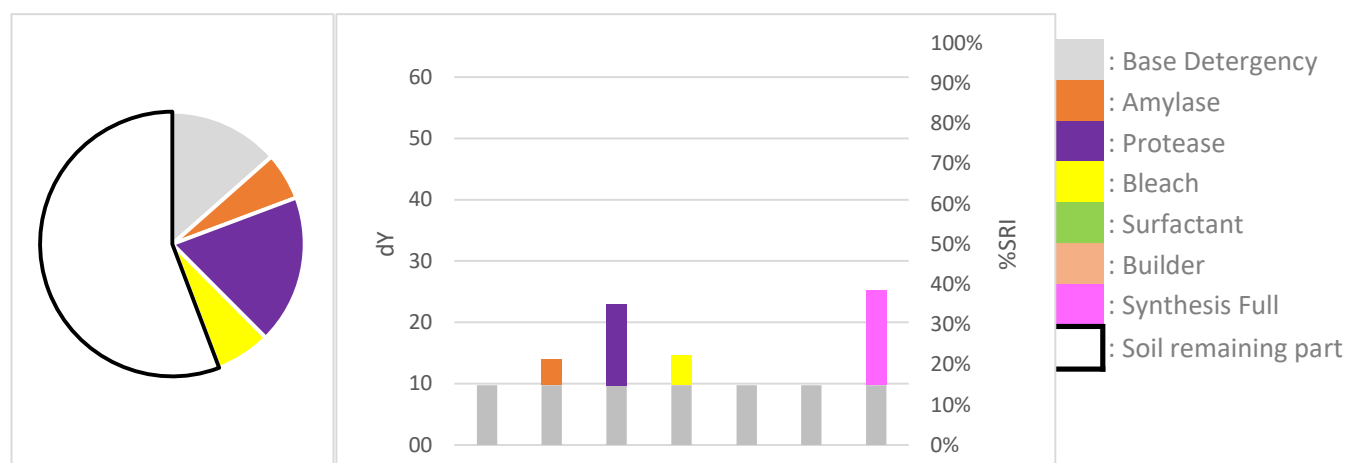
### Autodish detergent comparison



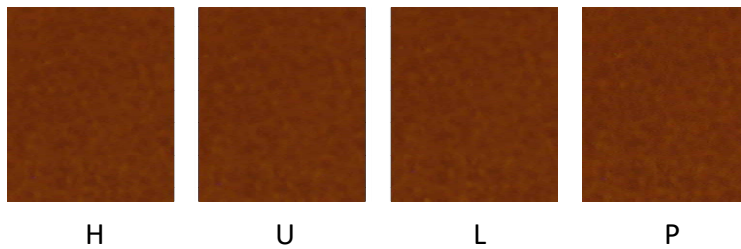
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**DM-08**

**Discriminative Power:**



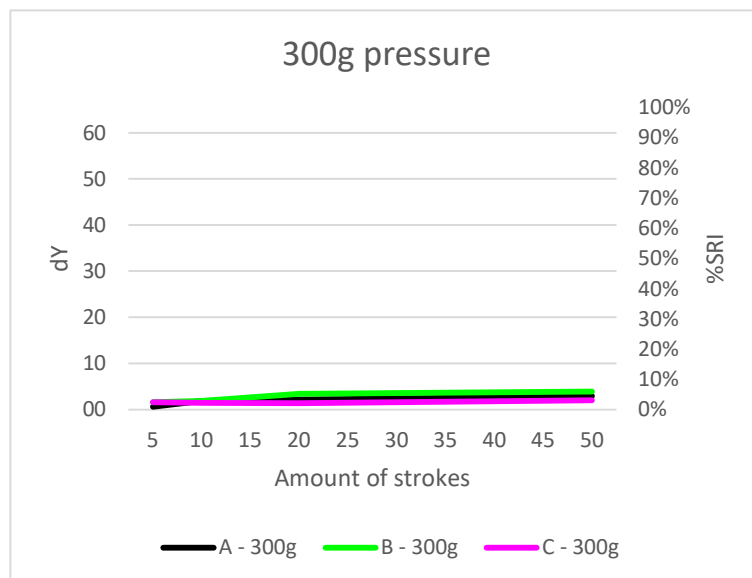
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



**Example soil removal pictures**



1 stroke



10 strokes



20 strokes



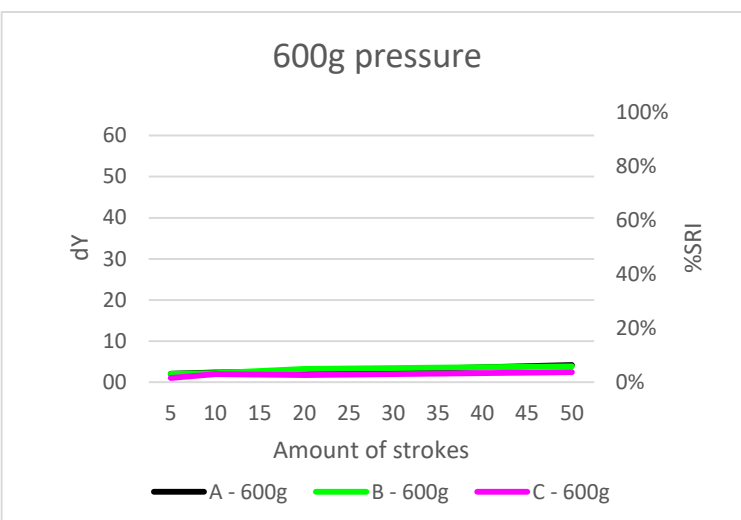
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles:

20x

Amount of pressure:

300g

Speed cycles/min:

20

Length in mm:

200

Utensil:

CFT sponge (soft)

Application method:

ABS

# DM-10

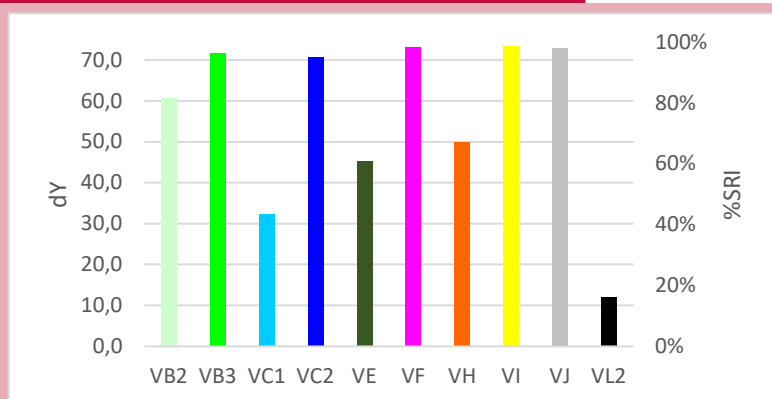
## Crème brûlée, baked



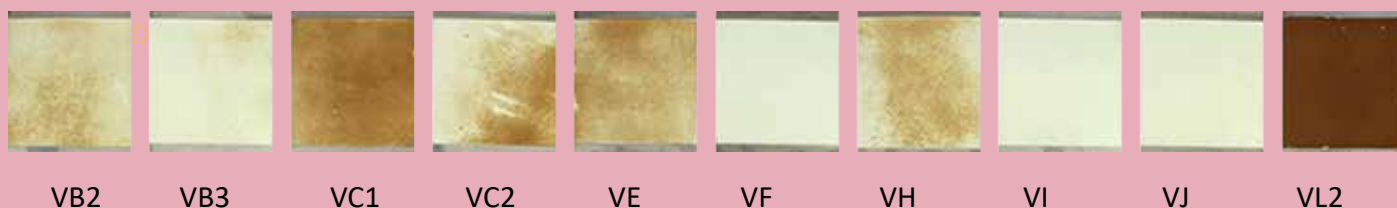
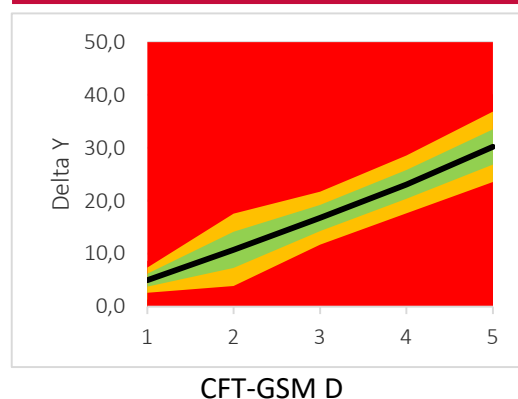
Discriminative Power: ★★★★★  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-10	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-10	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DG-10	Glass plate, smooth (DG H)	120 x 100 x 2	87,5
DP-10	Plastic (PP) tile, smooth (DP H)	120 x 100 x 1,2	84,1

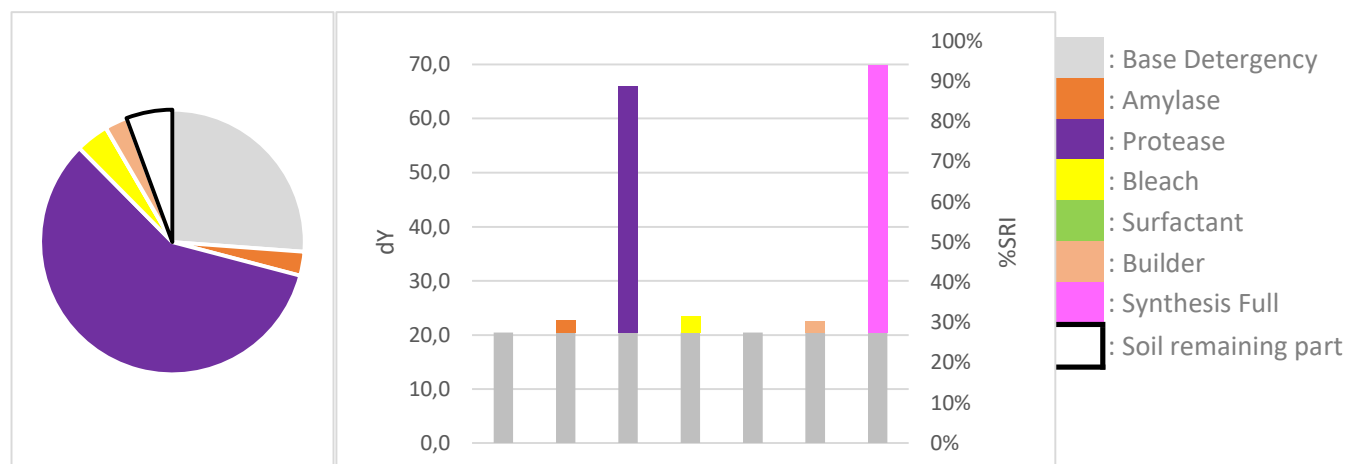
### Autodish detergent comparison



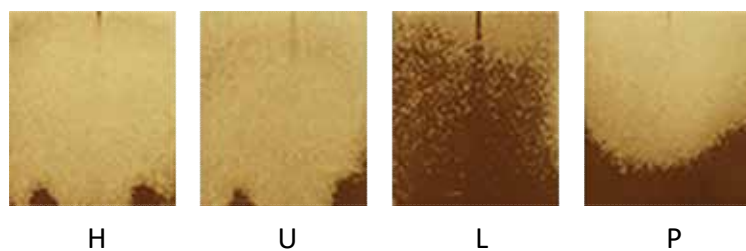
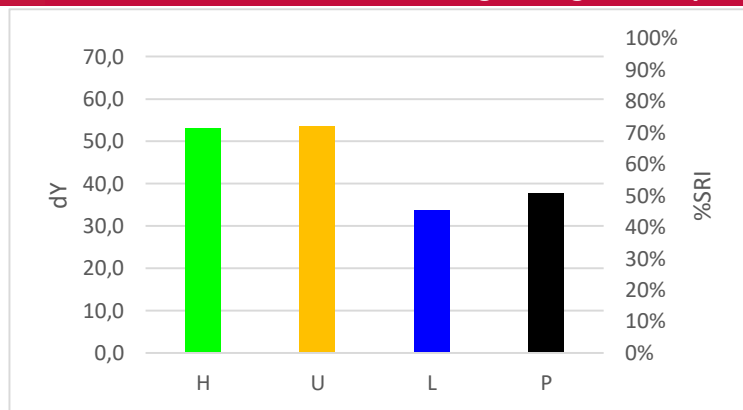
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-10

**Discriminative Power:**



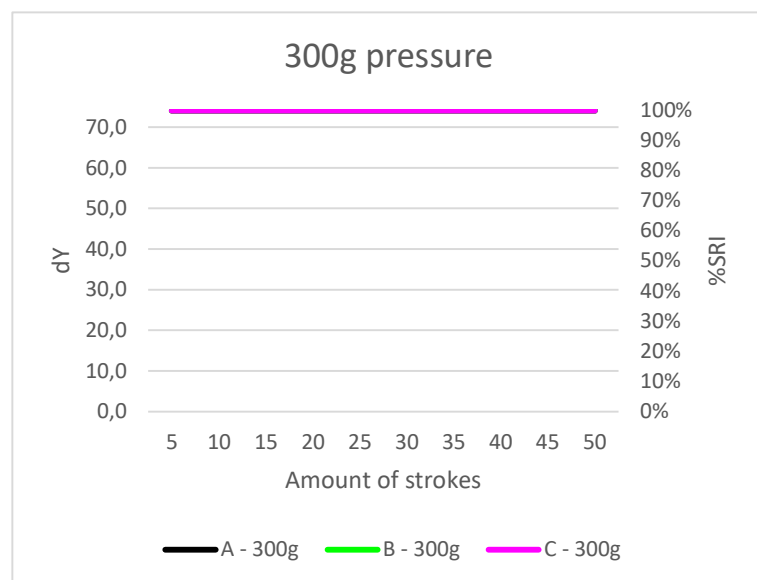
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



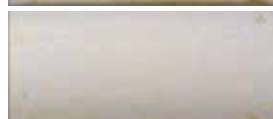
**Reliability Ratio:**



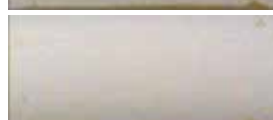
Example soil removal pictures



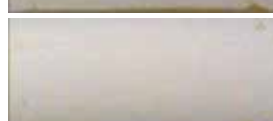
1 stroke



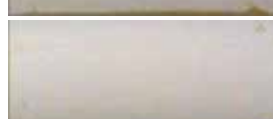
10 strokes



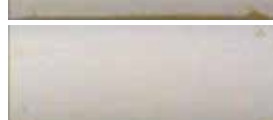
20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 5x

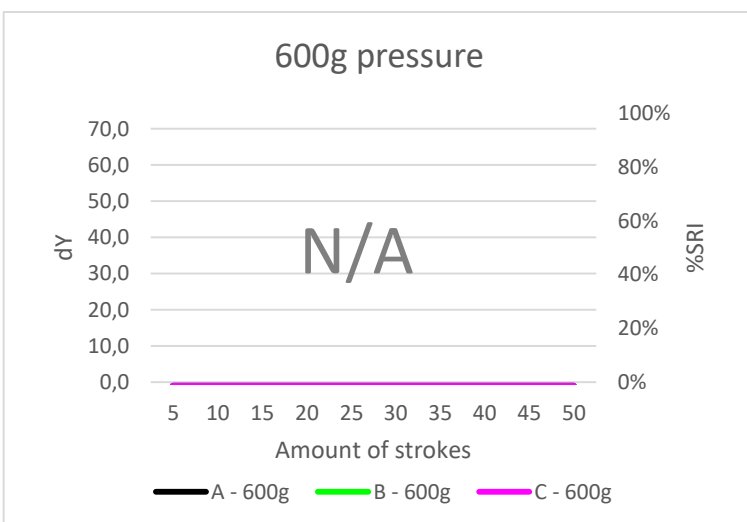
Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS





# DM-11

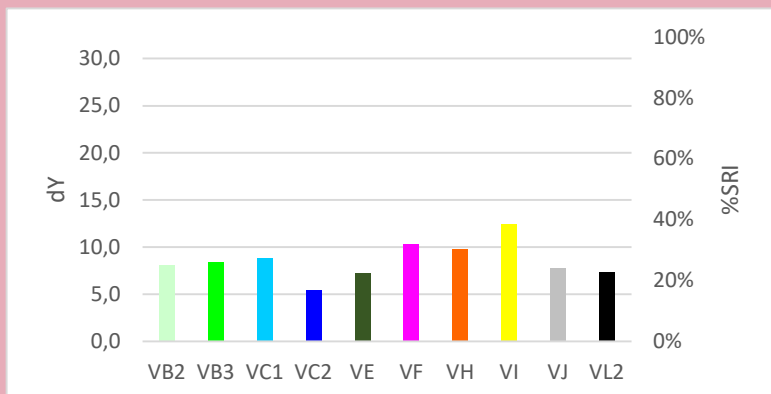
## Tea



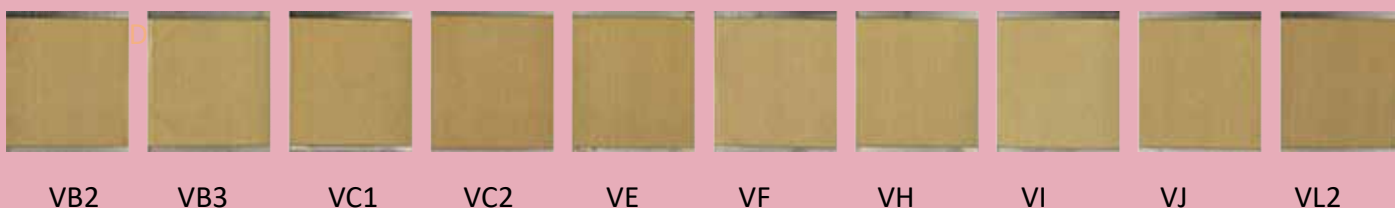
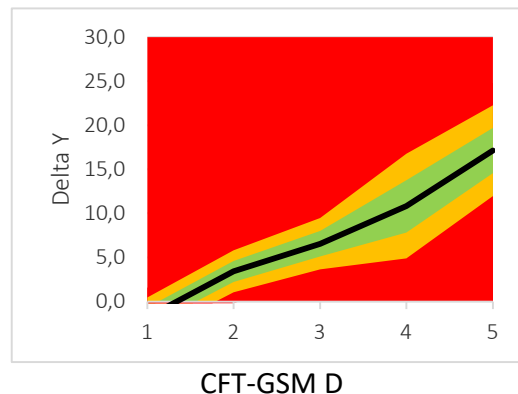
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-11	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0

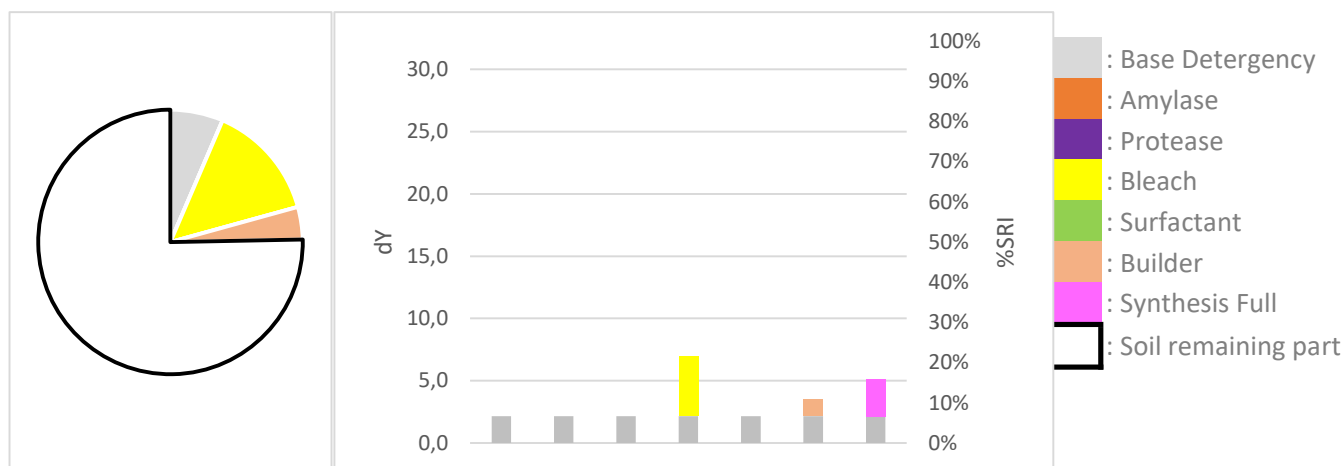
### Autodish detergent comparison



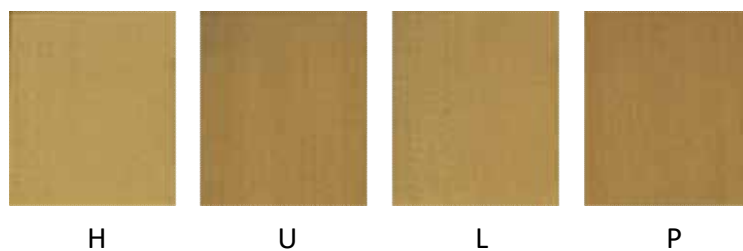
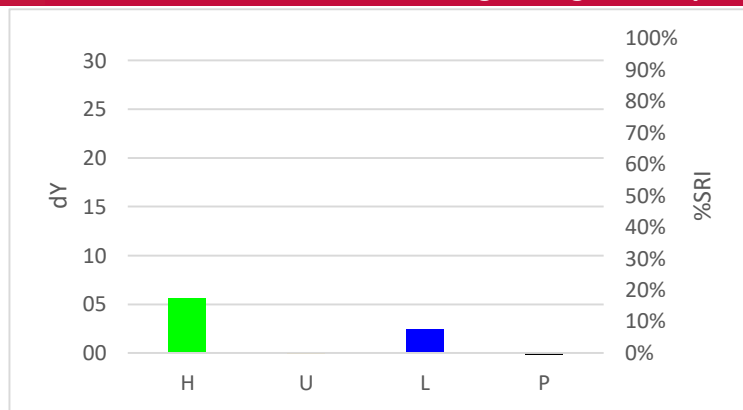
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



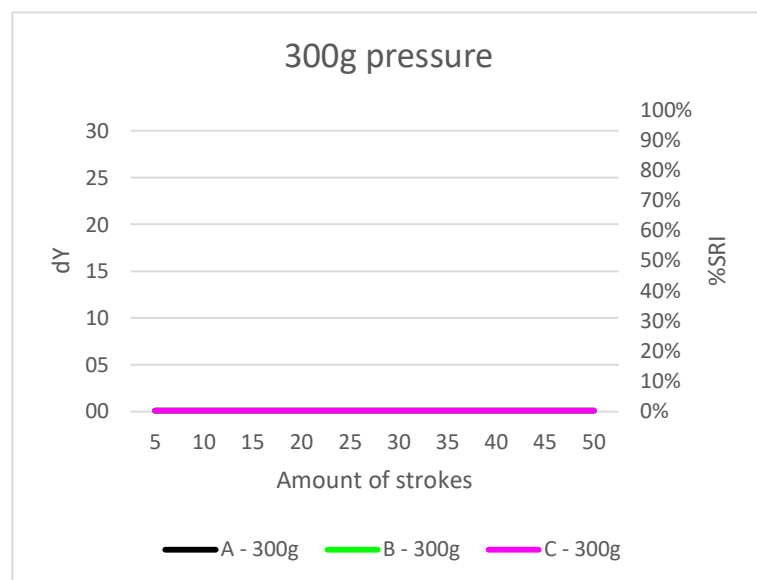
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



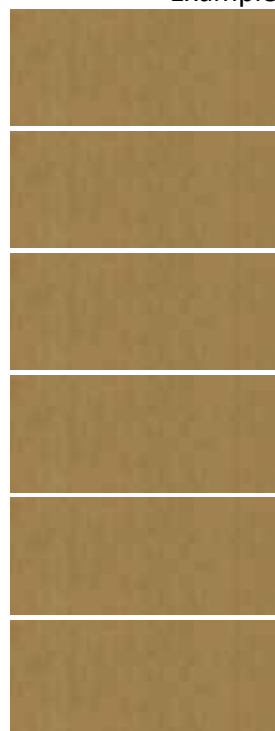
**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke

10 strokes

20 strokes

30 strokes

40 strokes

50 strokes

### Recommended TQC testing conditions

Amount of cycles: 5x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-12

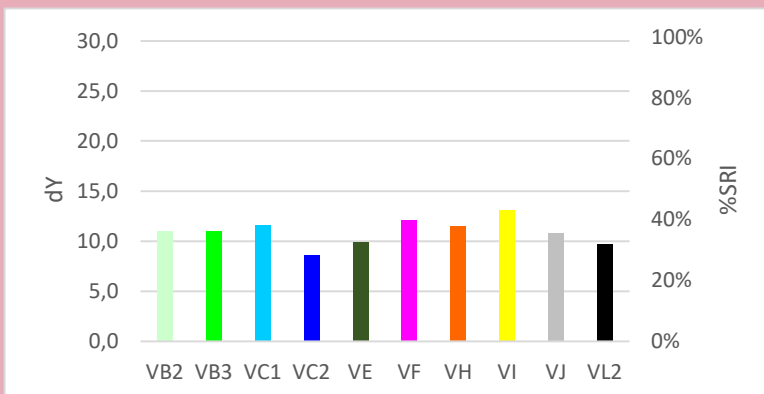
## Tea with milk



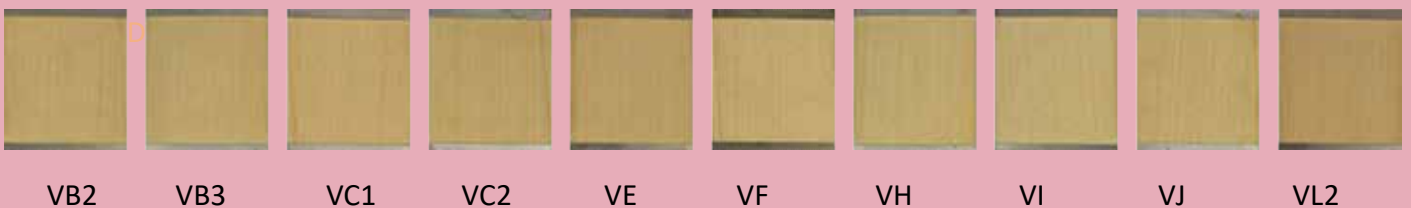
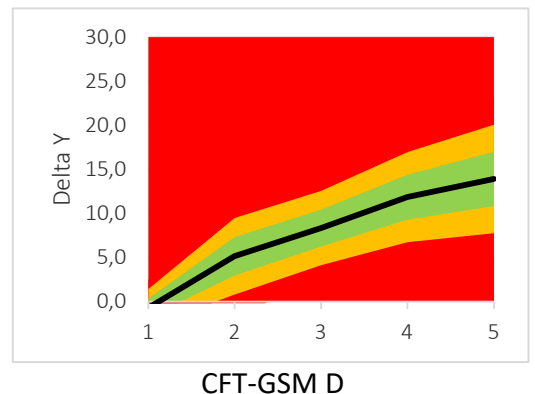
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-12	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0

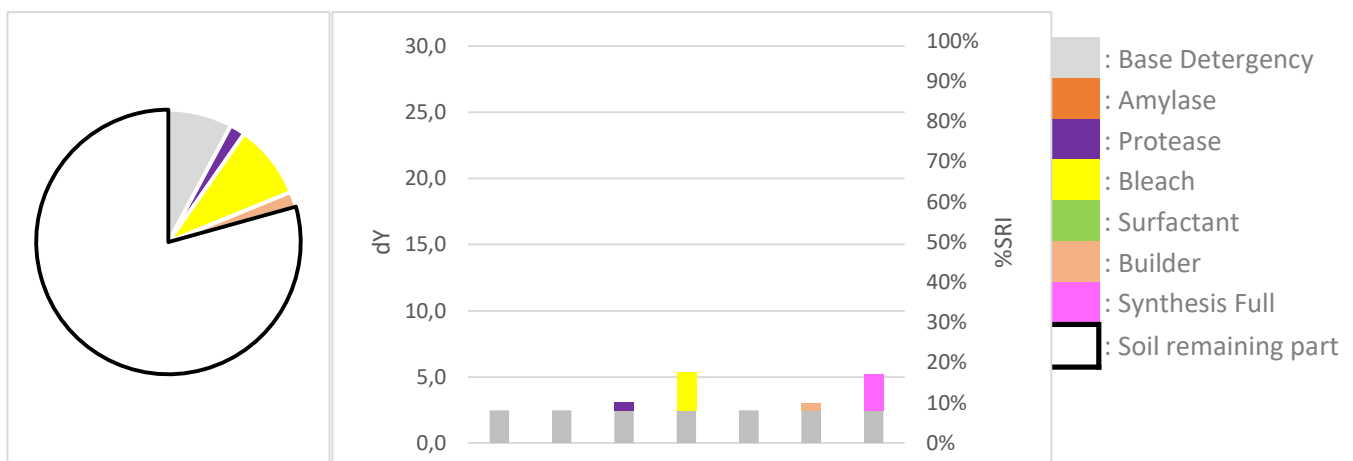
### Autodish detergent comparison



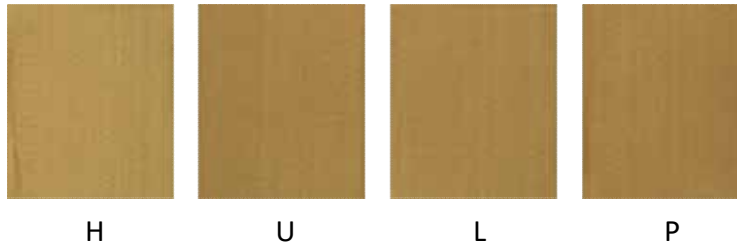
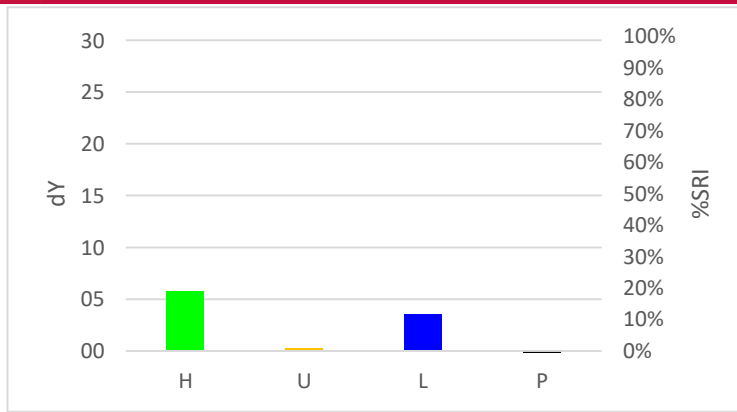
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-12

**Discriminative Power:**



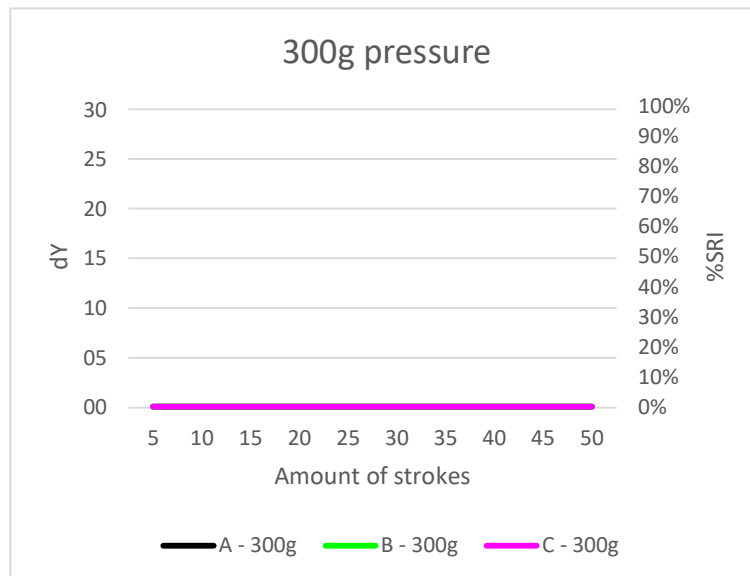
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



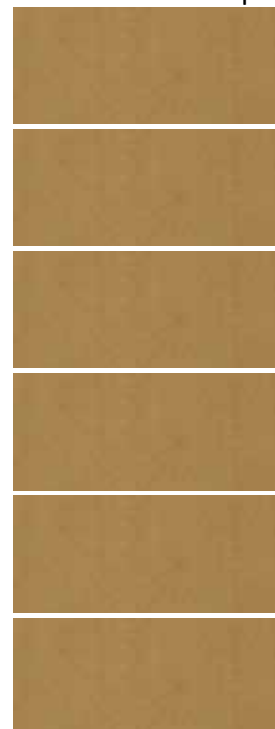
**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke

10 strokes

20 strokes

30 strokes

40 strokes

50 strokes

### Recommended TQC testing conditions

Amount of cycles: 5x

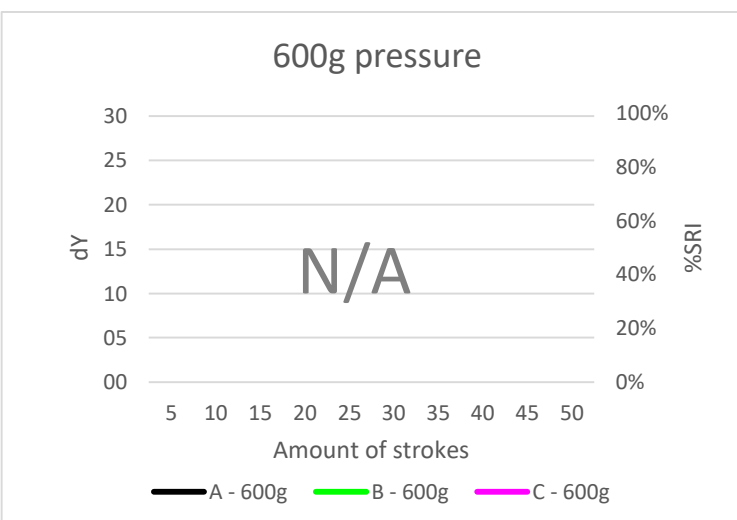
Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS



# DM-14

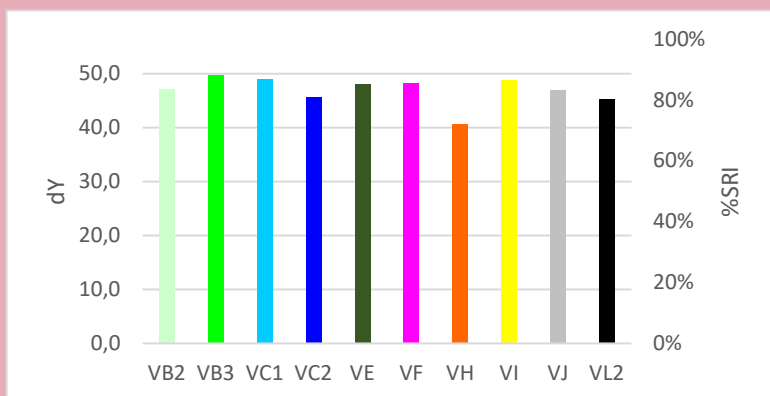
## Highly discriminative tea



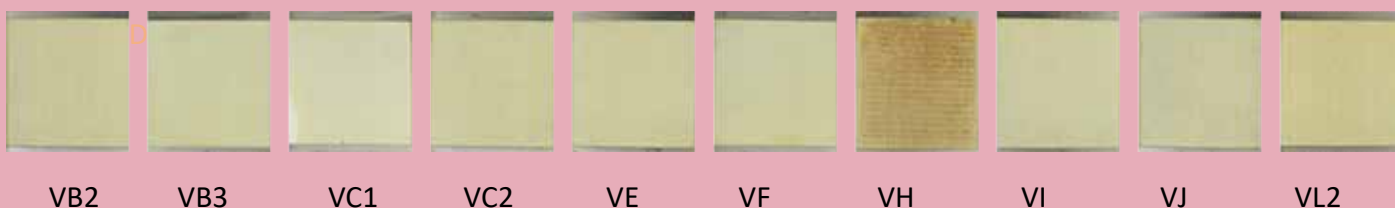
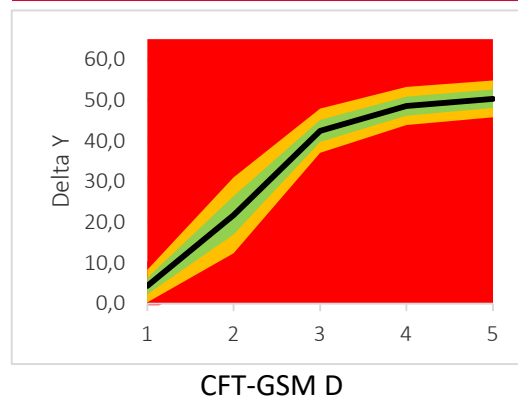
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-14	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-14	Technical Porcelain (DT H)	120 x 100 x 1	87,2

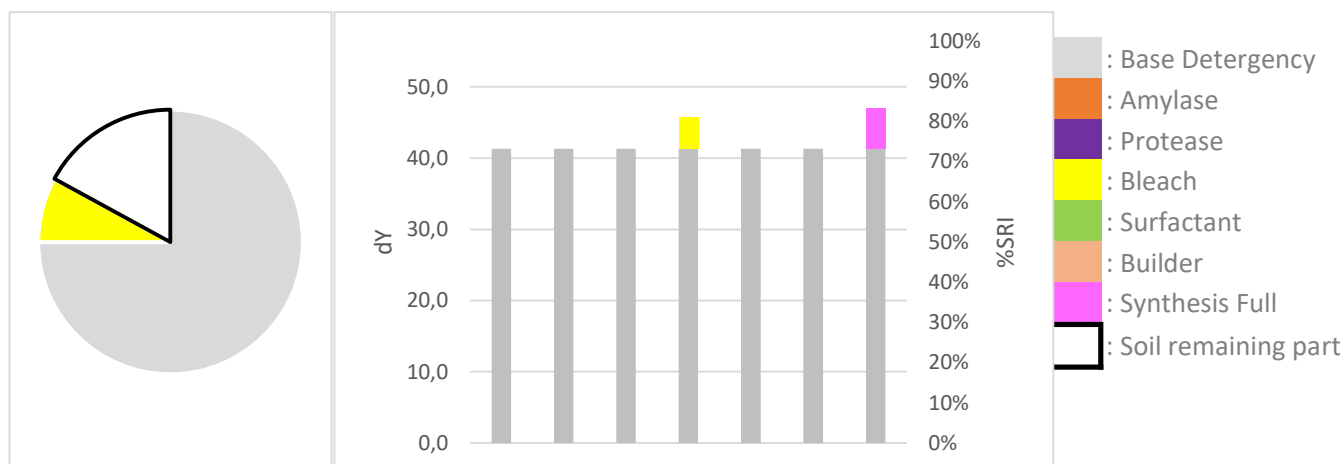
### Autodish detergent comparison



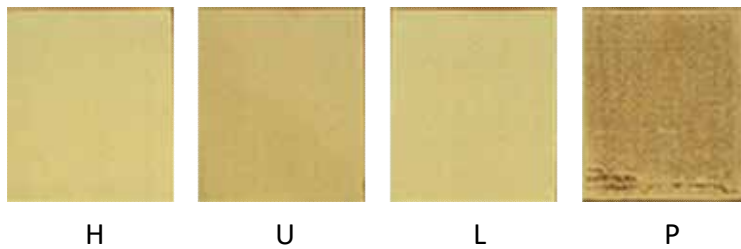
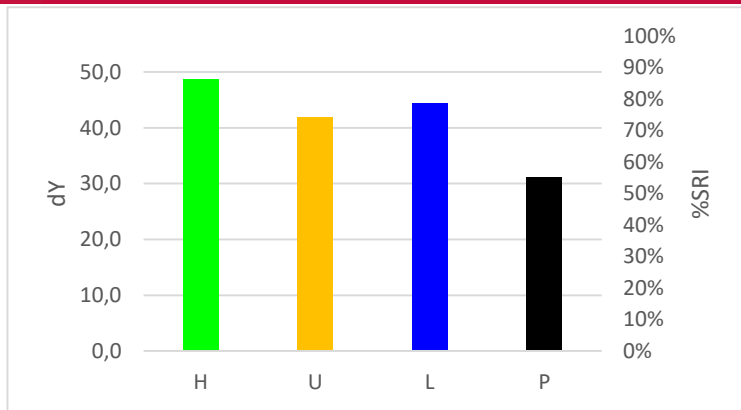
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-14

**Discriminative Power:**



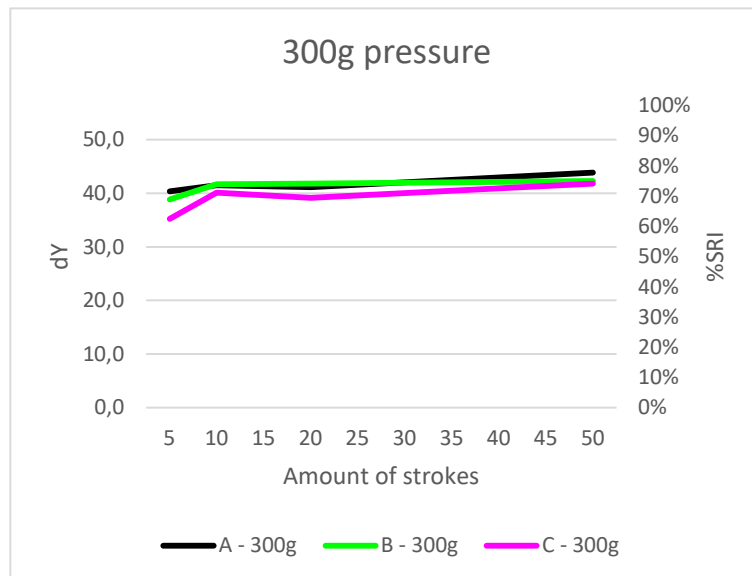
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



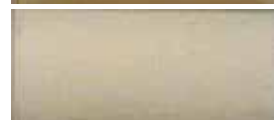
**Reliability Ratio:**



Example soil removal pictures



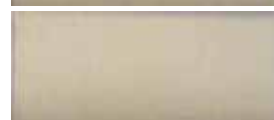
1 stroke



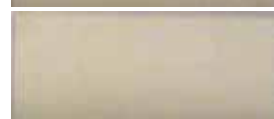
10 strokes



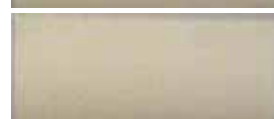
20 strokes



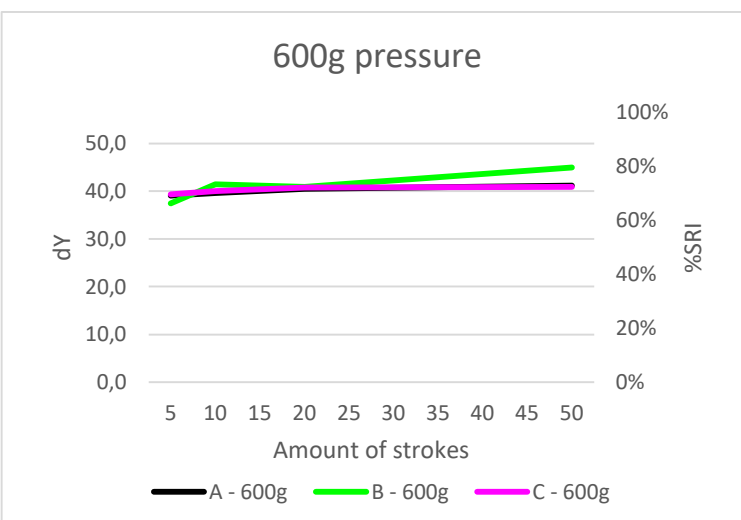
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DG-15

## Lipstick



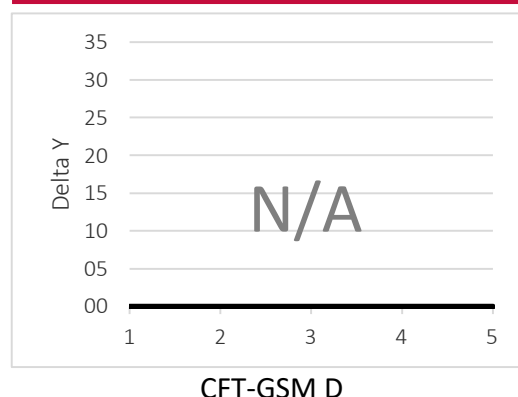
Discriminative Power: ☆☆☆☆☆  
 Reproducibility Ratio: ★☆☆☆☆  
 Reliability Ratio: ☆☆☆☆☆  
 Popularity: ★☆☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DT-15	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DG-15	Glass plate, smooth (DG H)	120 x 100 x 2	87,5

### Autodish detergent comparison

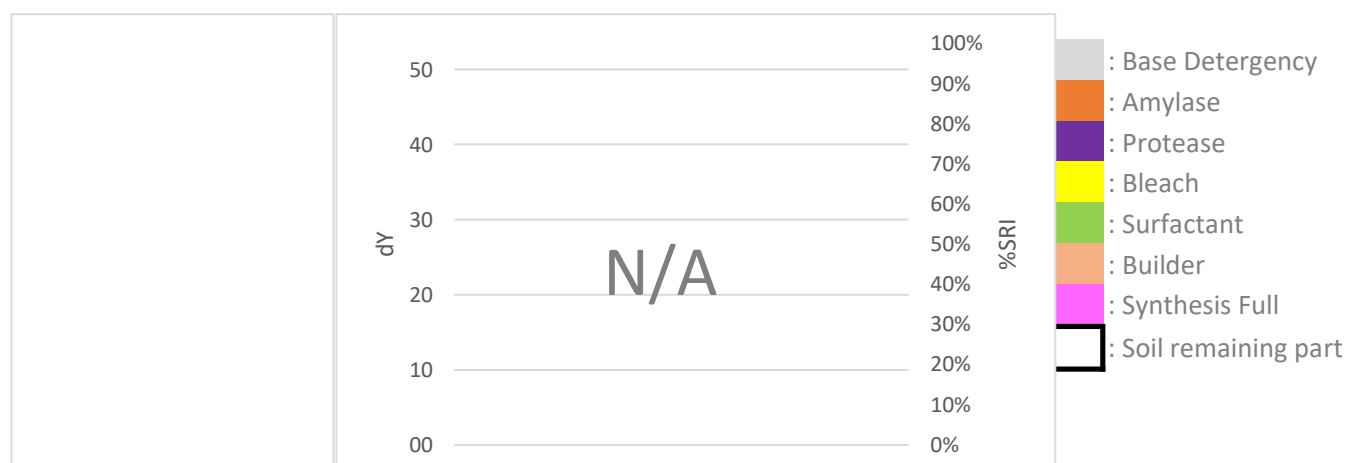


### Quality Control



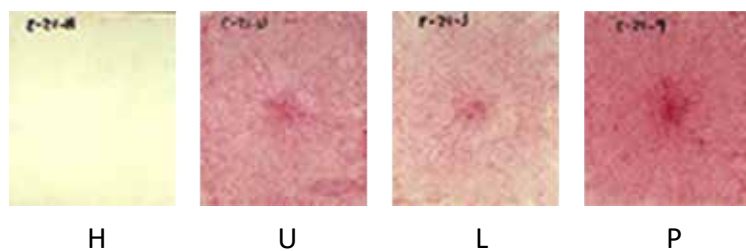
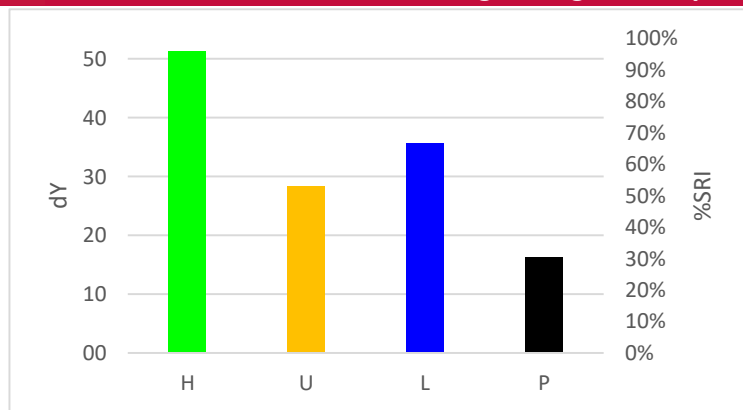
VB2 VB3 VC1 VC2 VE VF VH VI VJ VL2

### Autodish detergent component response





## Professional cleaning detergent comparison



**DG-15**

**Discriminative Power:**



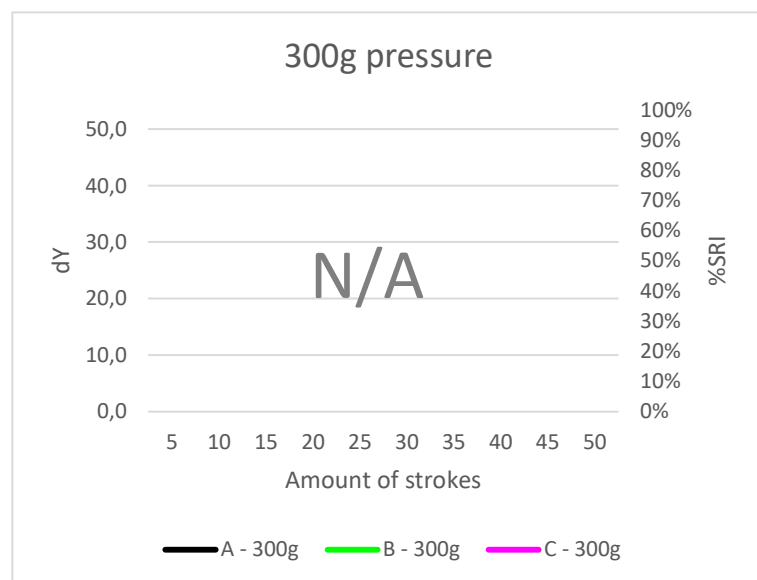
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures

N/A

1 stroke

N/A

10 strokes

N/A

20 strokes

N/A

30 strokes

N/A

40 strokes

N/A

50 strokes

### Recommended TQC testing conditions

Amount of cycles: N/A

Amount of pressure: N/A

Speed cycles/min: N/A

Length in mm: N/A

Utensil: N/A

Application method: N/A

# DM-21

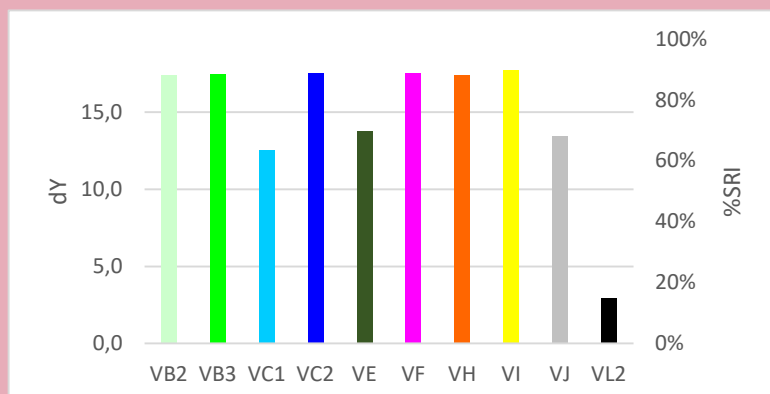
## Egg yolk



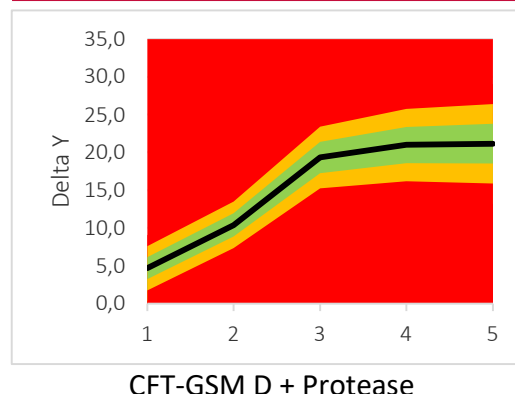
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-21	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-21	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-21	Steel plate, smooth (DS H)	120 x 100 x 1	44,4
DG-21	Glass plate, smooth (DG H)	120 x 100 x 2	87,5
DP-21	Plastic (PP) tile, smooth (DP H)	120 x 100 x 1,2	84,1

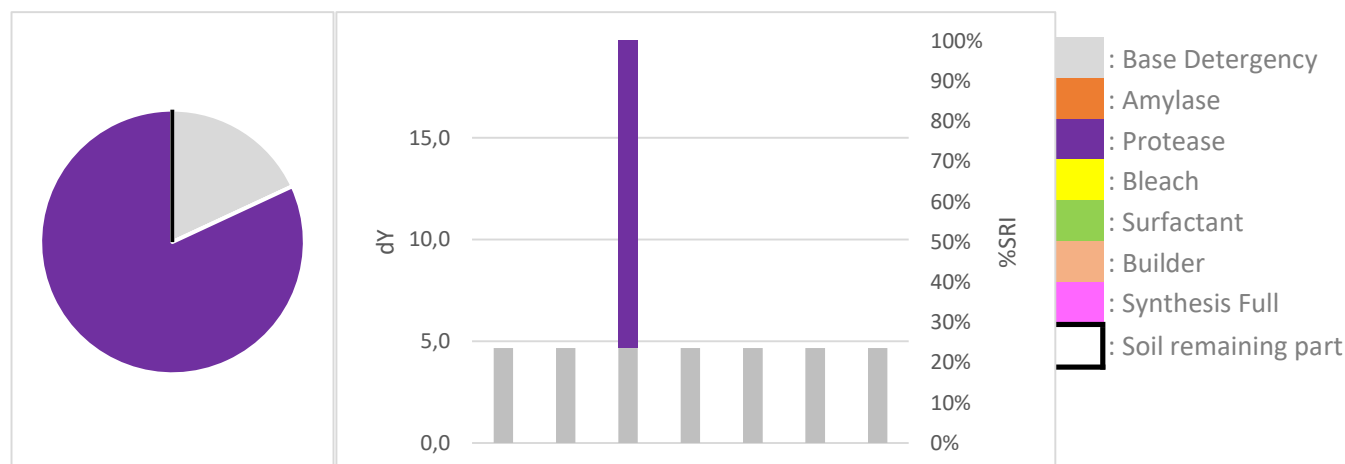
### Autodish detergent comparison



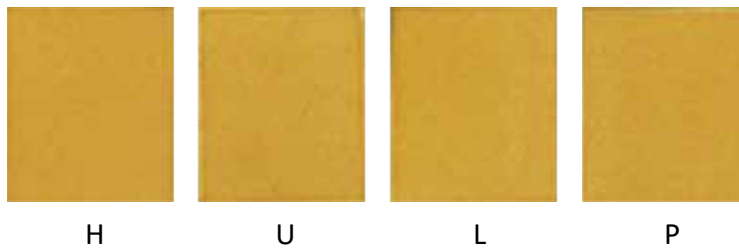
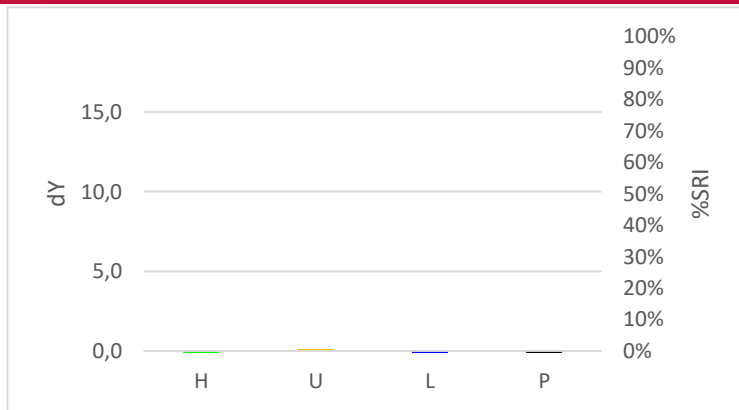
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



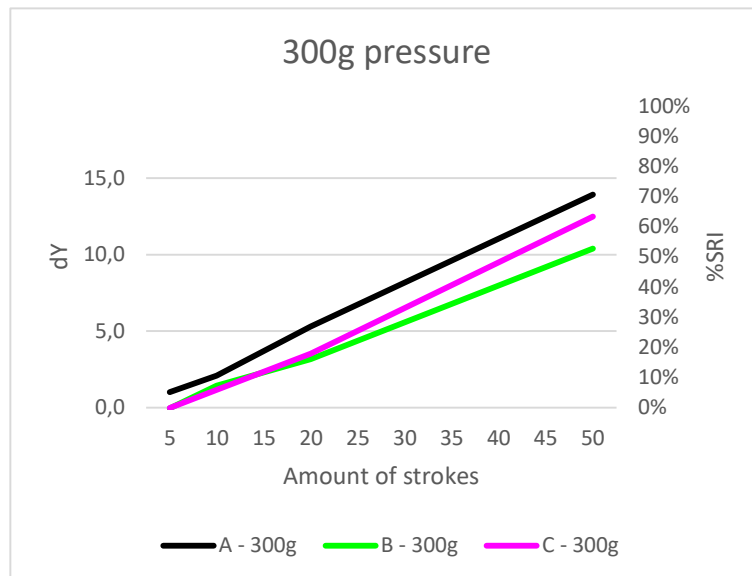
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



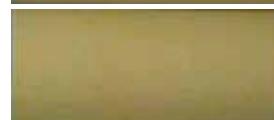
**Reliability Ratio:**



Example soil removal pictures



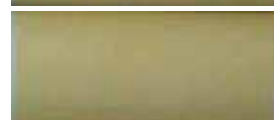
1 stroke



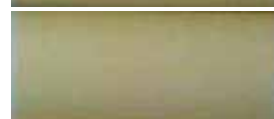
10 strokes



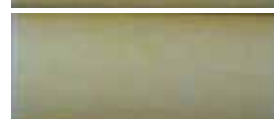
20 strokes



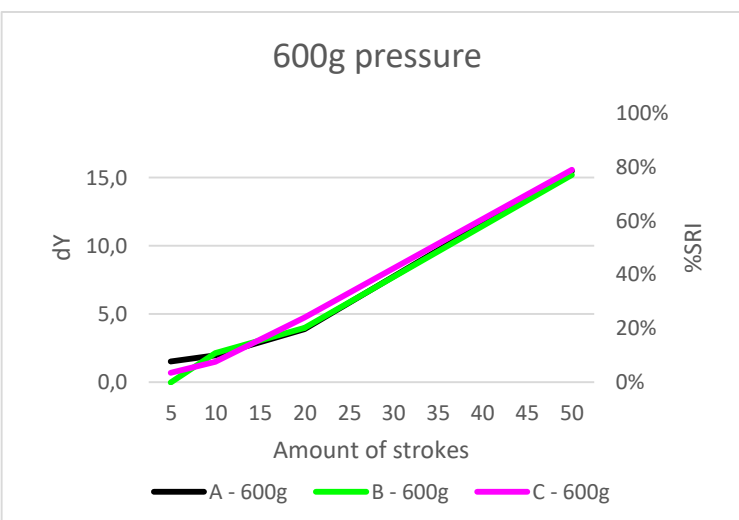
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles:

50x

Amount of pressure:

300g

Speed cycles/min:

20

Length in mm:

200

Utensil:

CFT sponge (soft)

Application method:

SOAK

# DM-22

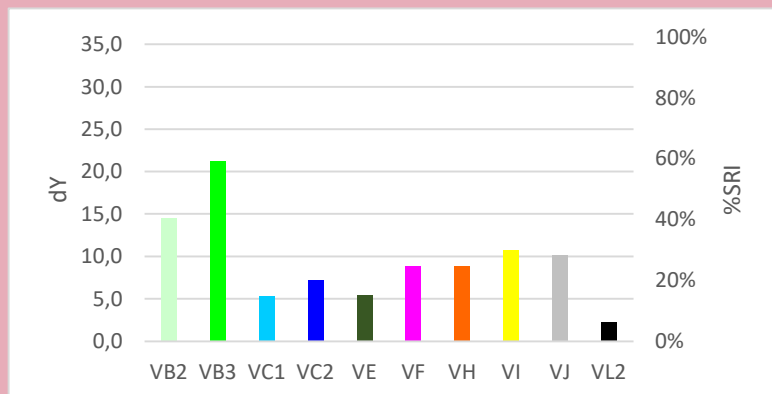
## Egg yolk, double soil load



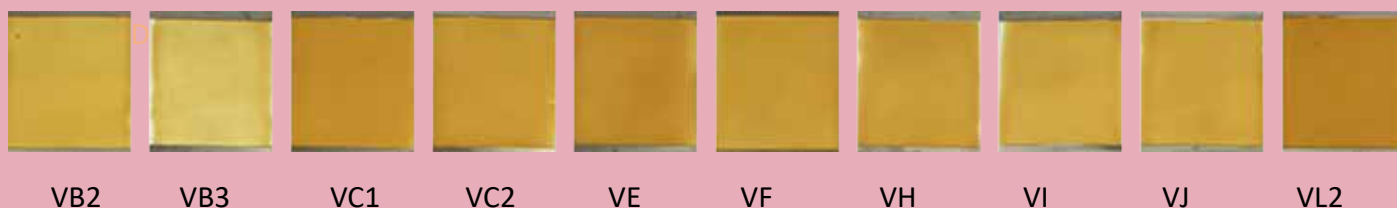
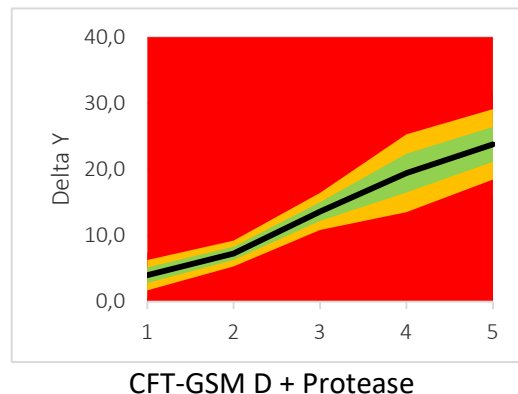
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-22	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-22	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-22	Steel plate, smooth (DS H)	120 x 100 x 1	44,4
DG-22	Glass plate, smooth (DG H)	120 x 100 x 2	87,5
DP-22	Plastic (PP) tile, smooth (DP H)	120 x 100 x 1,2	84,1

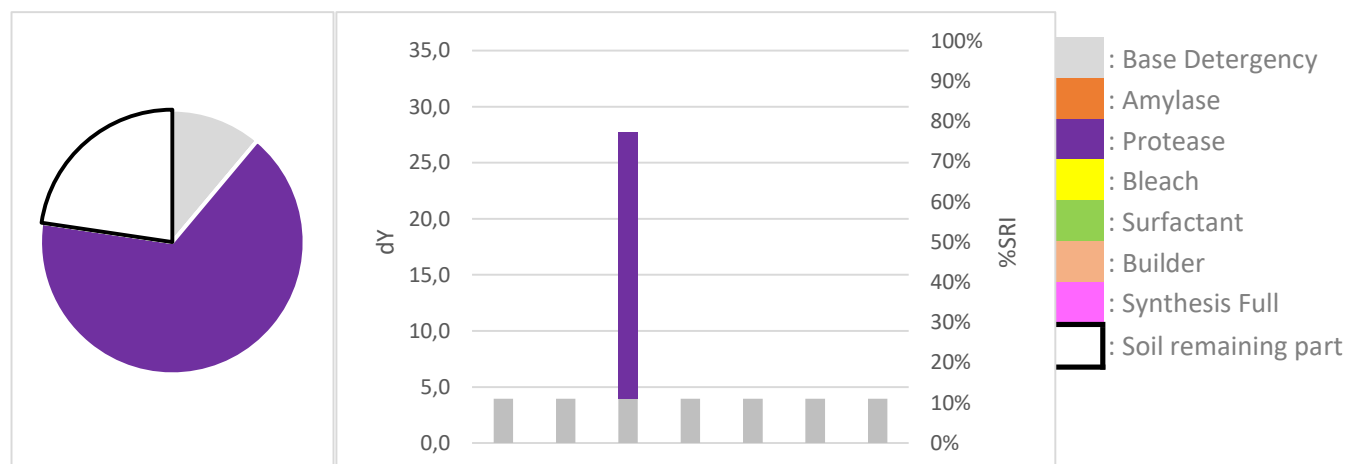
### Autodish detergent comparison



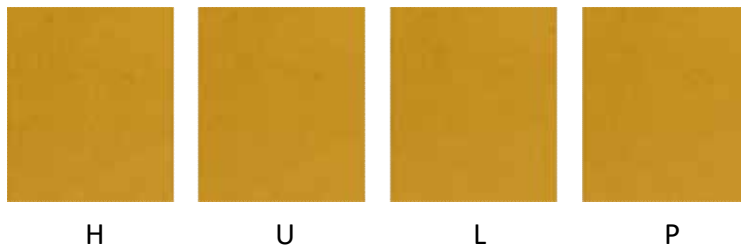
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



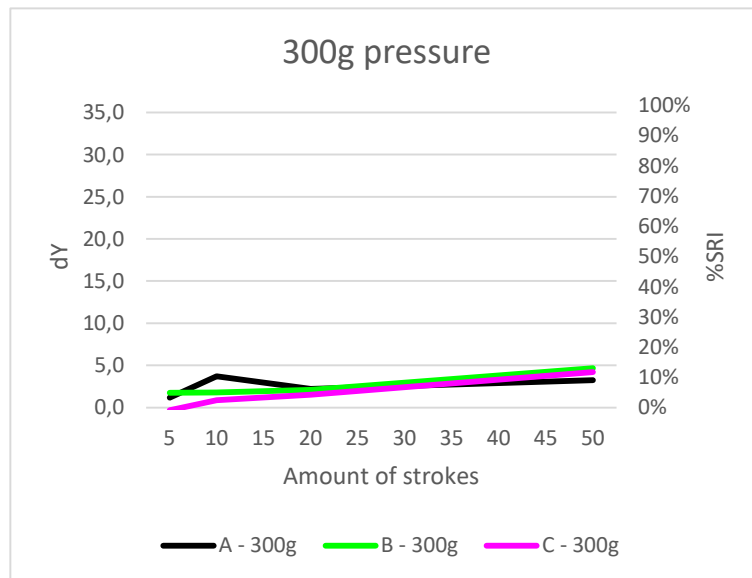
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



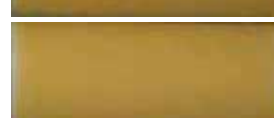
1 stroke



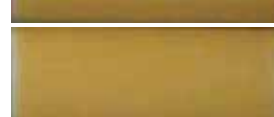
10 strokes



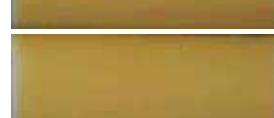
20 strokes



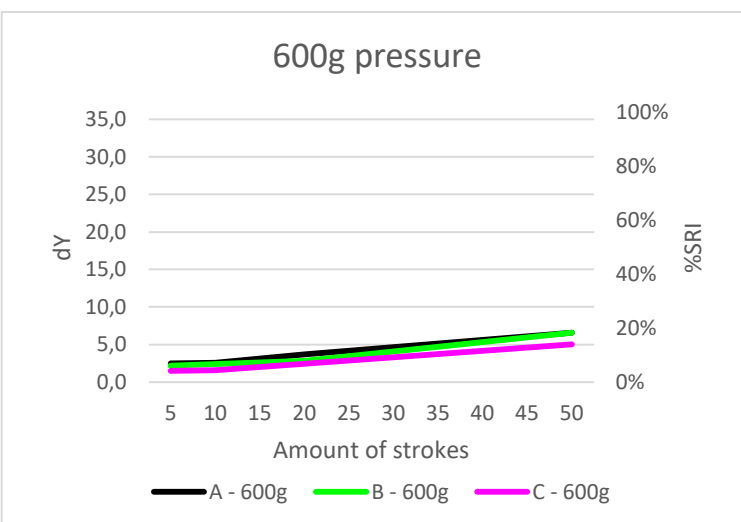
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 10x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-23

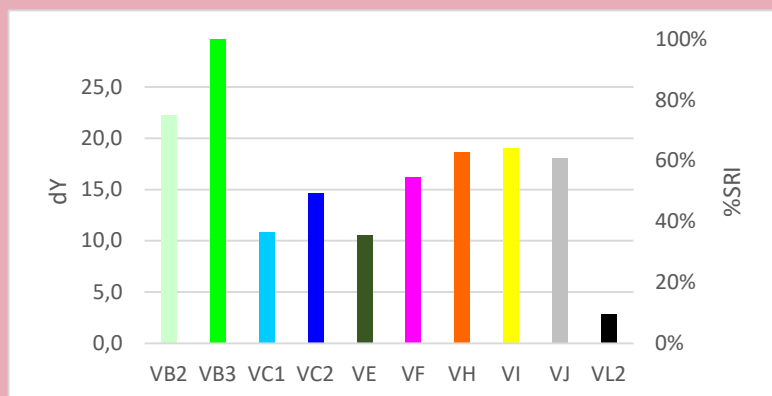
## Egg yolk, 1.5x soil load



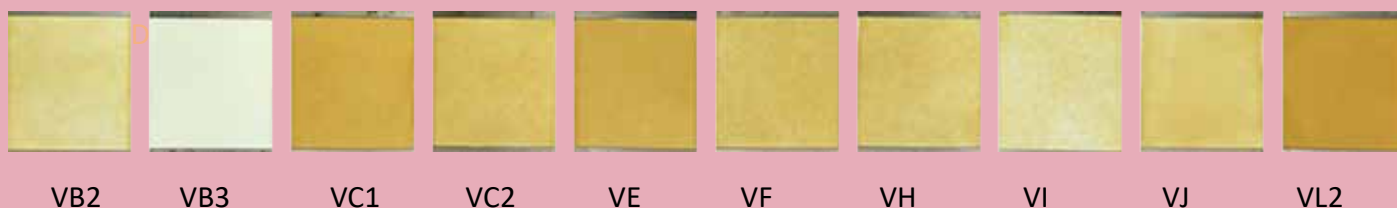
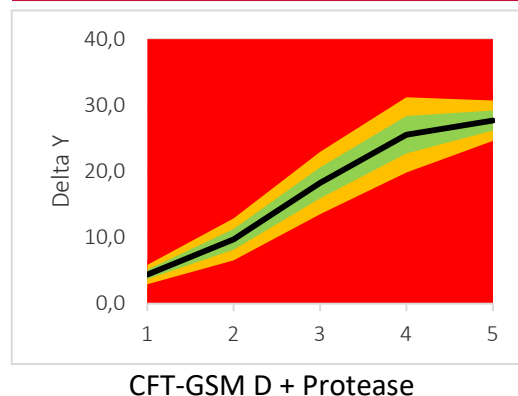
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★☆☆☆  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-23	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-23	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-23	Steel plate, smooth (DS H)	120 x 100 x 1	44,4
DG-23	Glass plate, smooth (DG H)	120 x 100 x 2	87,5
DP-23	Plastic (PP) tile, smooth (DP H)	120 x 100 x 1,2	84,1

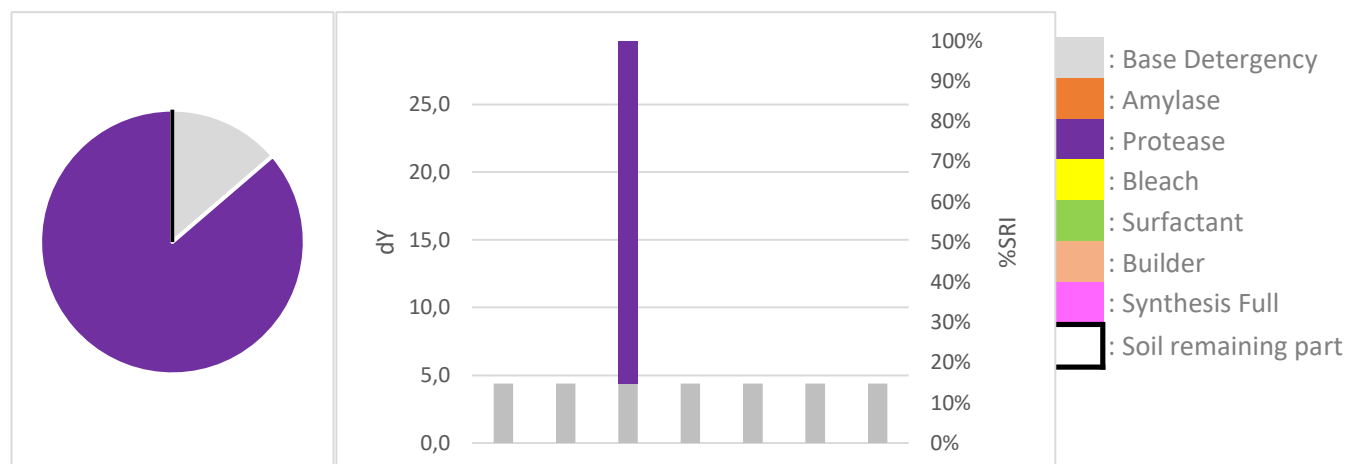
### Autodish detergent comparison



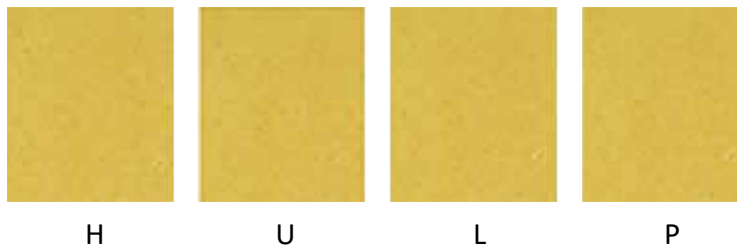
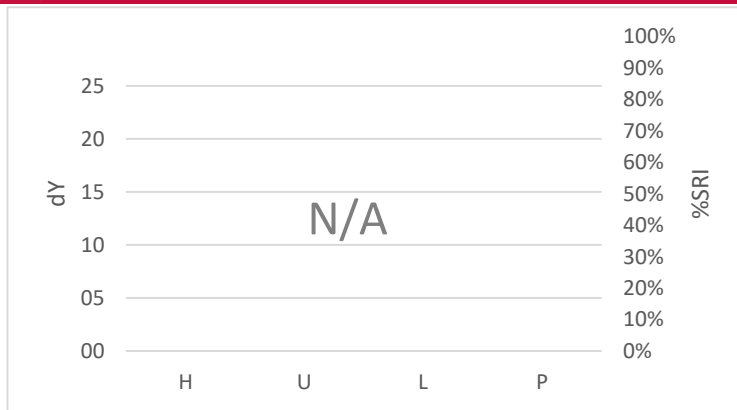
### Quality Control



### Autodish detergent component response



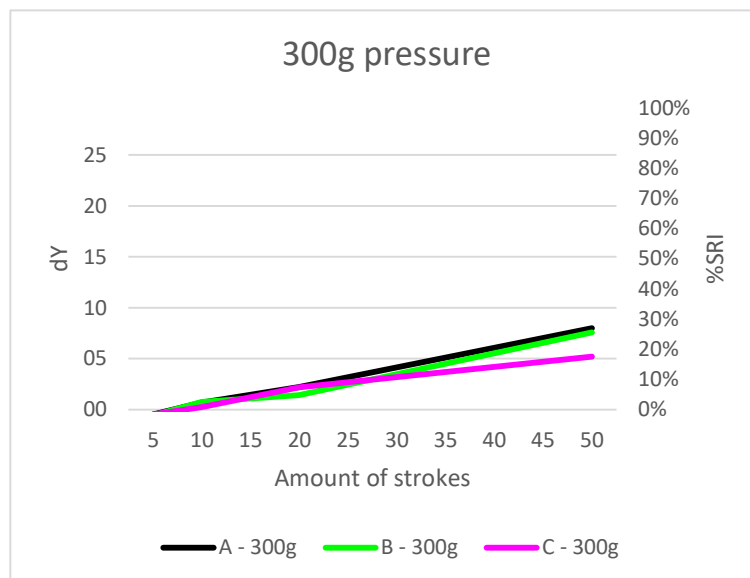
## Professional cleaning detergent comparison



**Discriminative Power:** ★☆☆☆☆  
**Reproducibility Ratio:** ★★★★★  
**Reliability Ratio:** ★★★★★

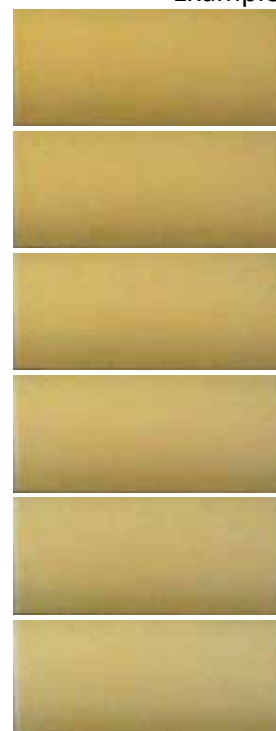
# DM-23

## Hand dishwash detergent comparison



**Discriminative Power:** ★☆☆☆☆  
**Reproducibility Ratio:** ★★★★★  
**Reliability Ratio:** ★★★★★

### Example soil removal pictures



1 stroke

10 strokes

20 strokes

30 strokes

40 strokes

50 strokes

### Recommended TQC testing conditions

Amount of cycles: 50x  
 Amount of pressure: 600g  
 Speed cycles/min: 20  
 Length in mm: 200  
 Utensil: CFT sponge (soft)  
 Application method: SOAK



# DM-24

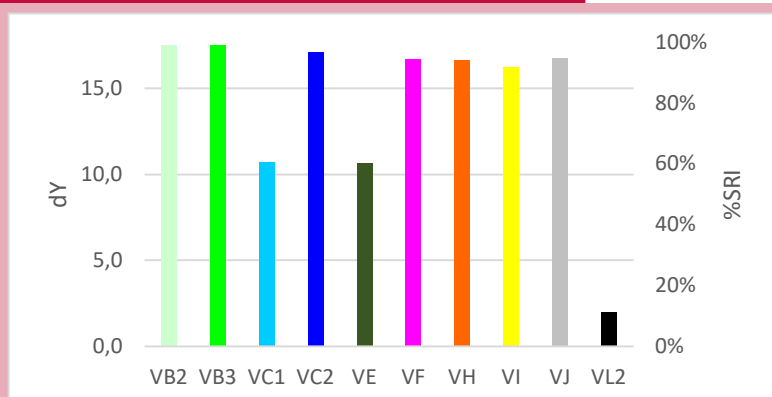
Egg yolk, 0.75x soil load



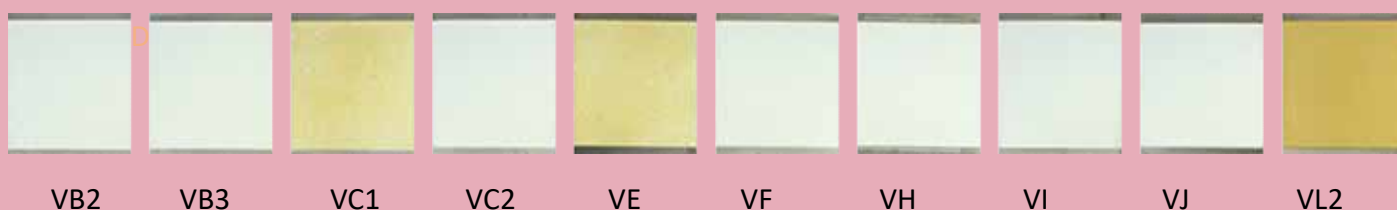
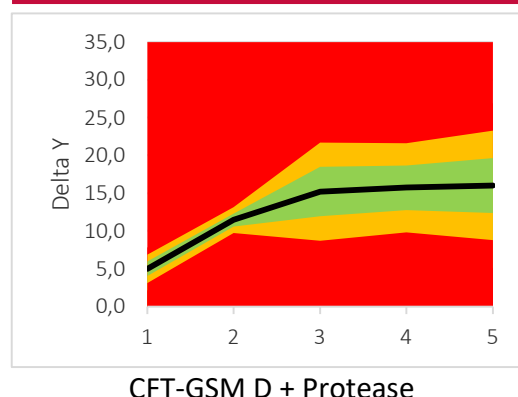
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-24	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-24	Technical Porcelain (DT H)	120 x 100 x 1	87,2

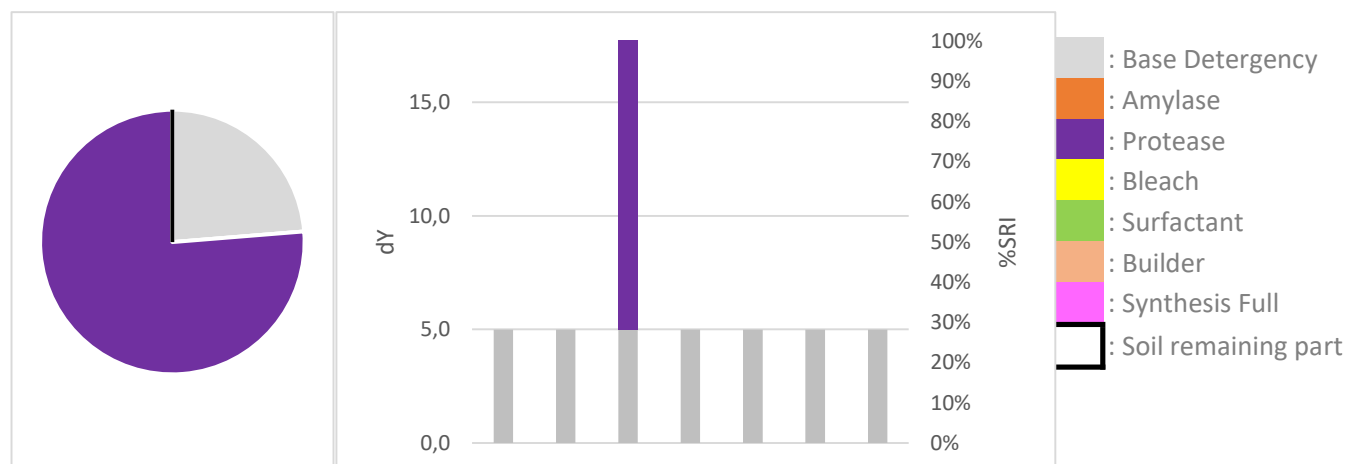
## Autodish detergent comparison



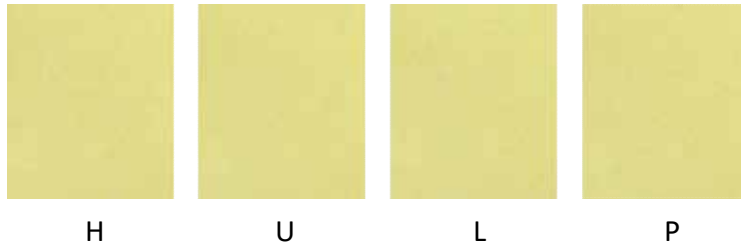
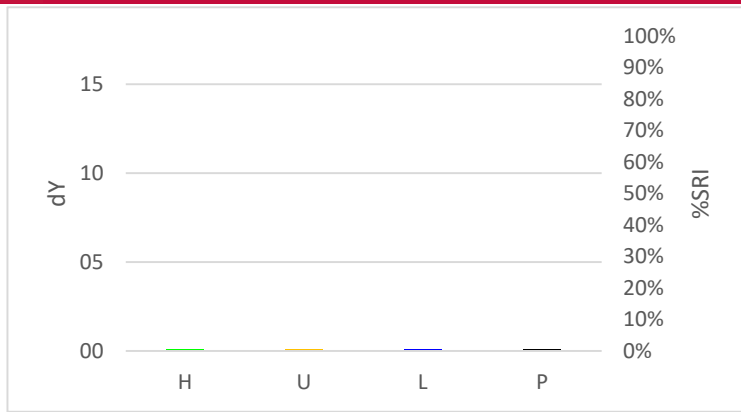
## Quality Control



## Autodish detergent component response



## Professional cleaning detergent comparison



# DM-24

**Discriminative Power:**



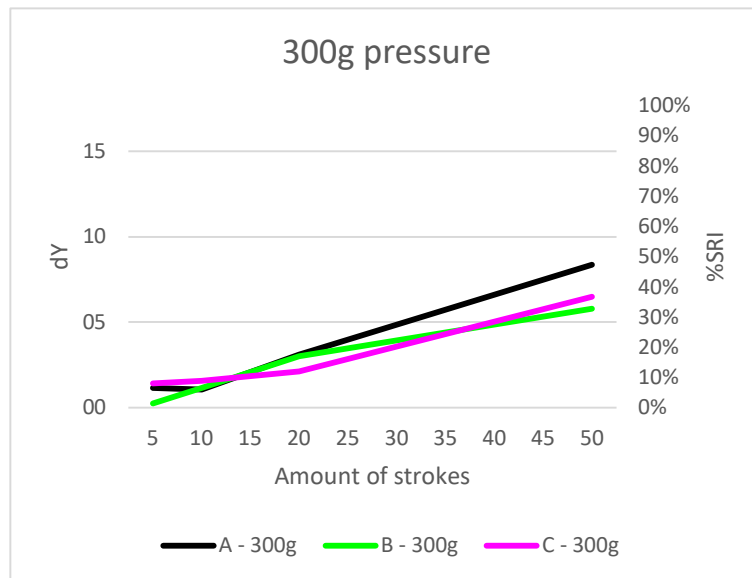
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke



10 strokes



20 strokes



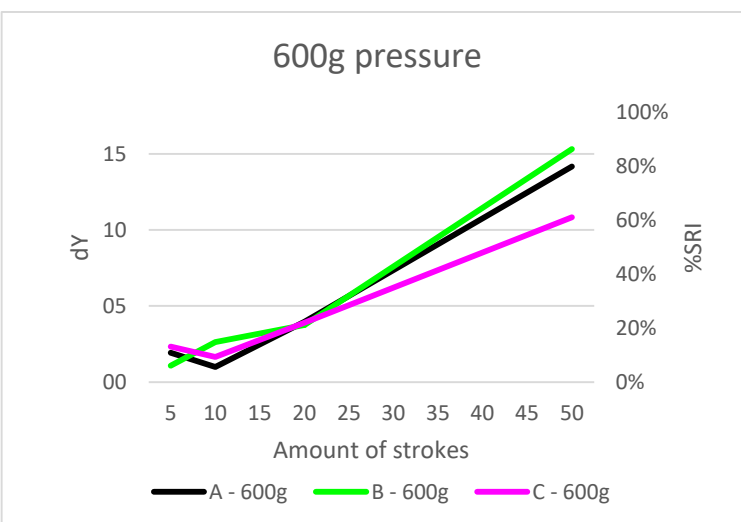
30 strokes



40 strokes



50 strokes



**Recommended TQC testing conditions**

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-25

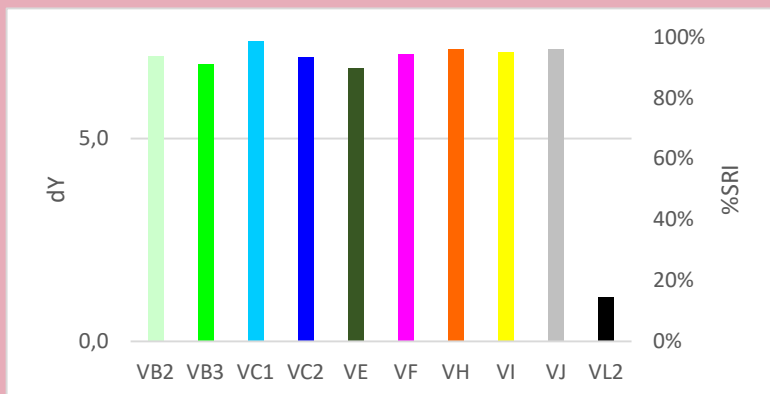
## Boiled egg yolk, based on IKW protocol



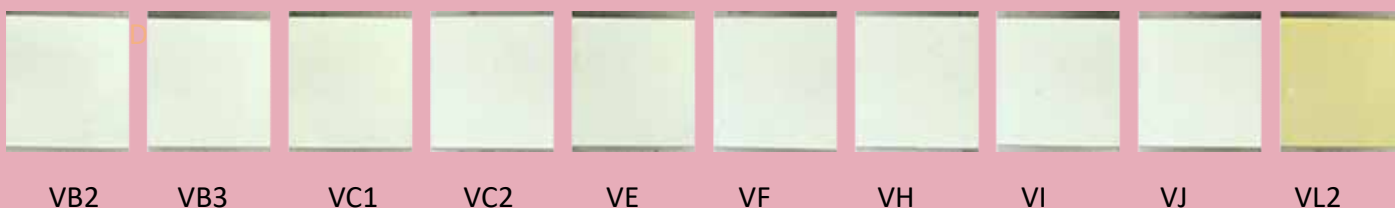
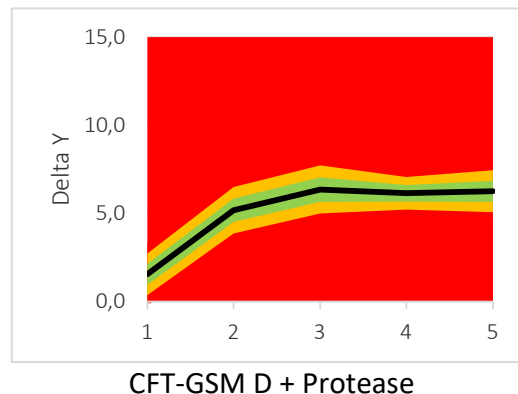
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-25	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-25	Technical Porcelain (DT H)	120 x 100 x 1	87,2

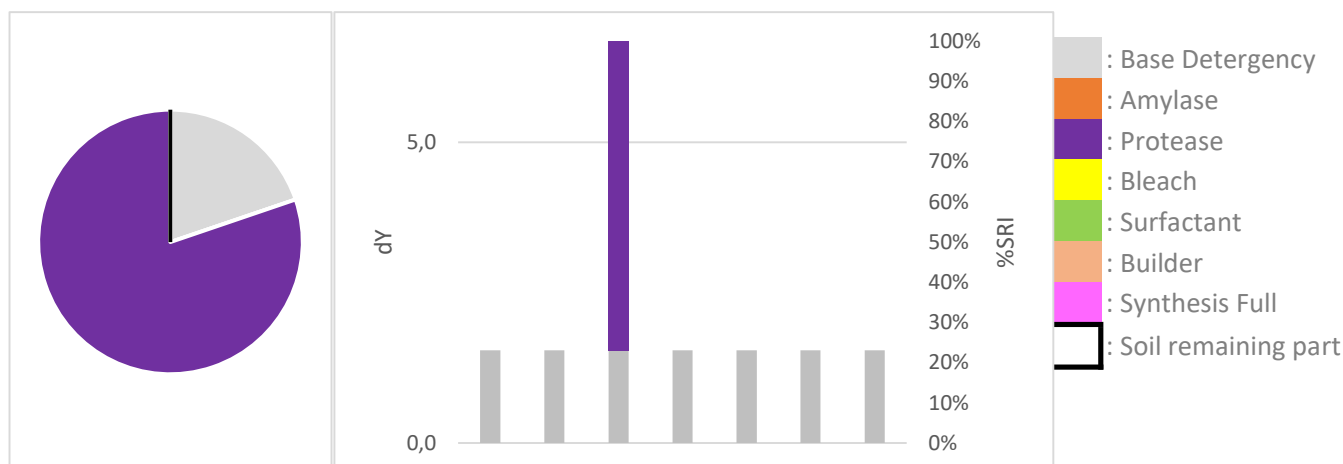
### Autodish detergent comparison



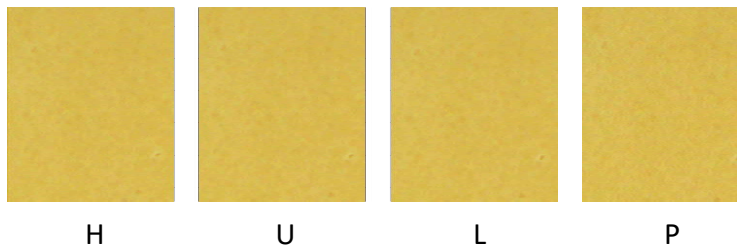
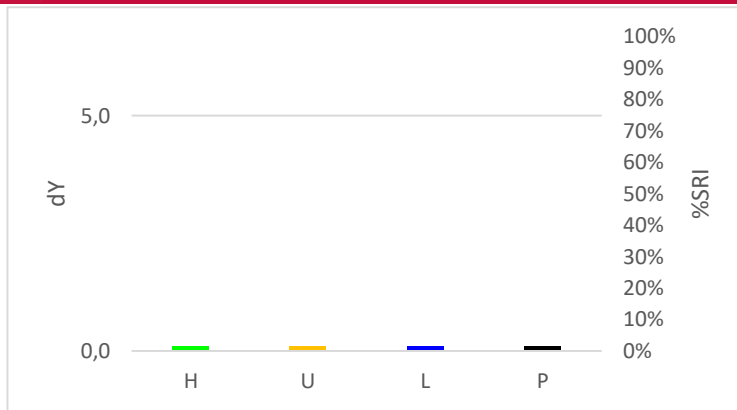
### Quality Control



### Autodish detergent component response



# DM-25



Discriminative Power:



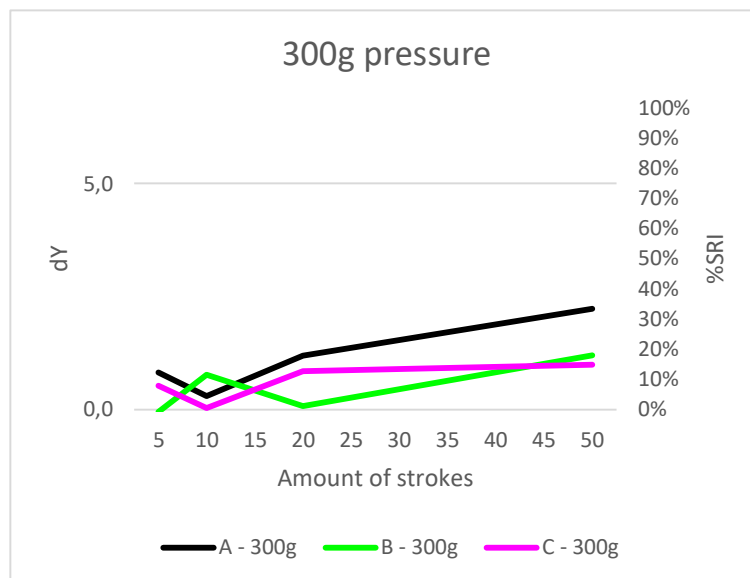
Reproducibility Ratio:



Reliability Ratio:



## Hand dishwash detergent comparison



Discriminative Power:



Reproducibility Ratio:



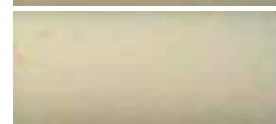
Reliability Ratio:



Example soil removal pictures



1 stroke



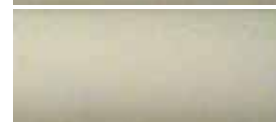
10 strokes



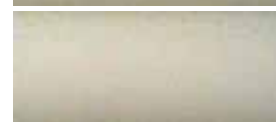
20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 50x

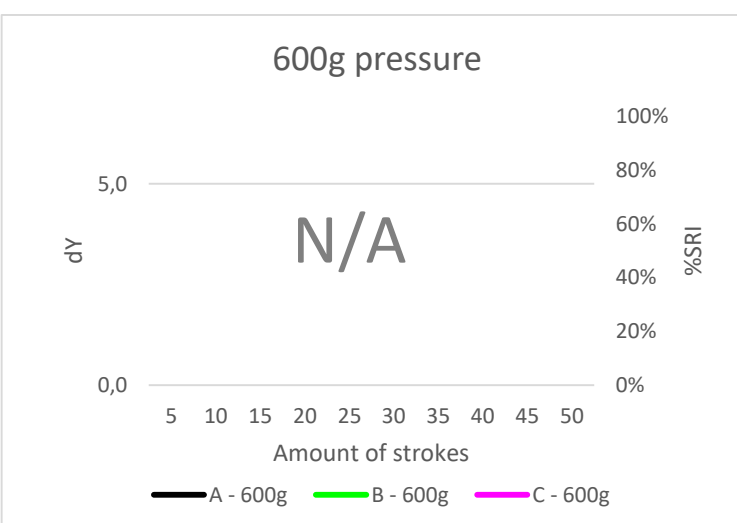
Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK



# DM-26

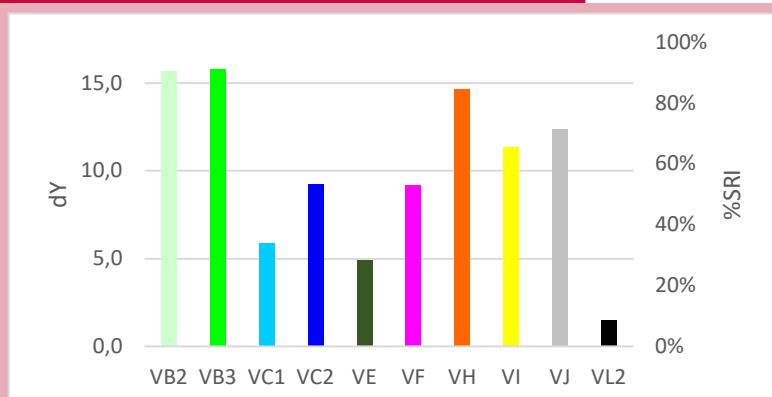
## Full egg



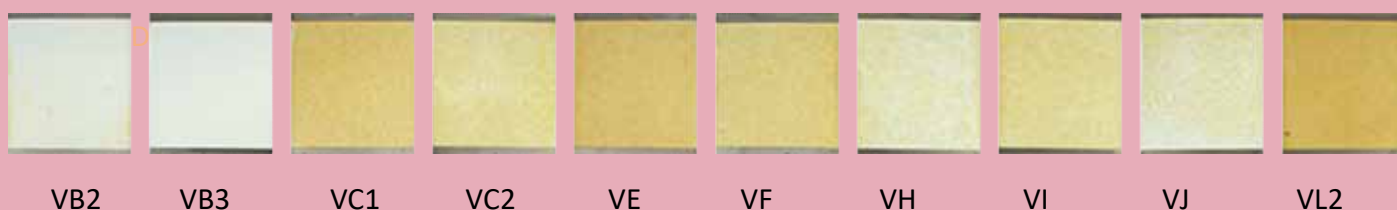
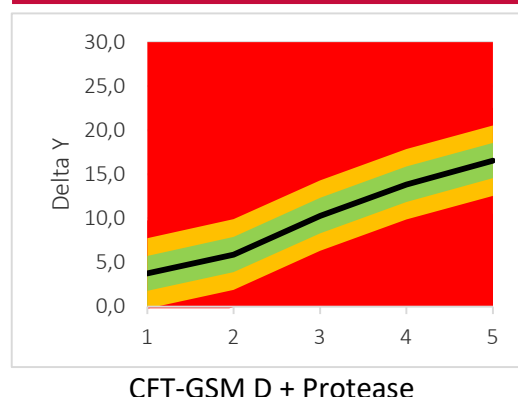
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★☆☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-26	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-26	Technical Porcelain (DT H)	120 x 100 x 1	87,2

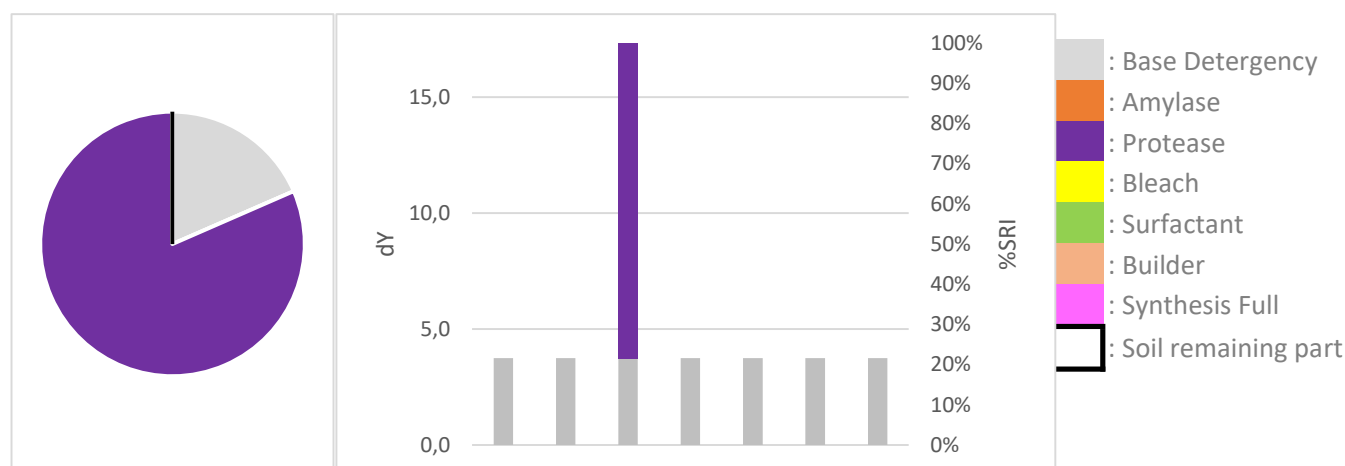
### Autodish detergent comparison



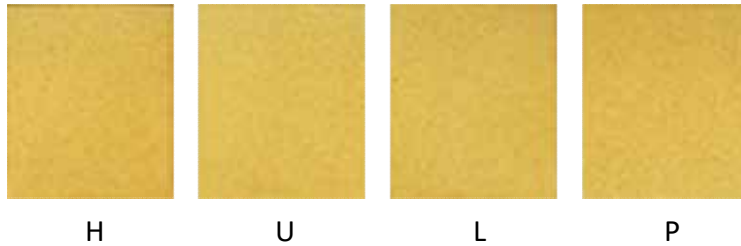
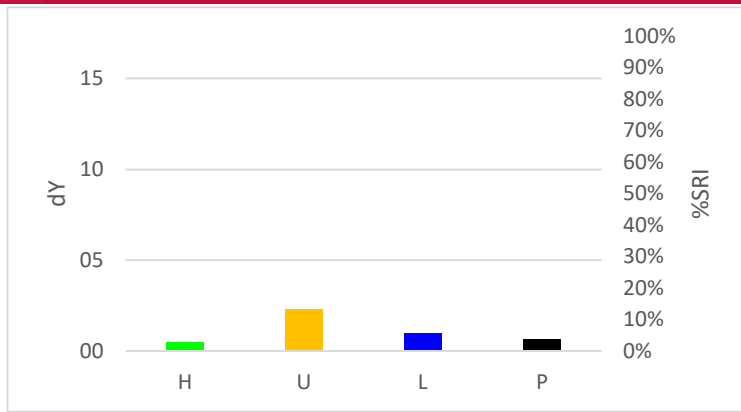
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



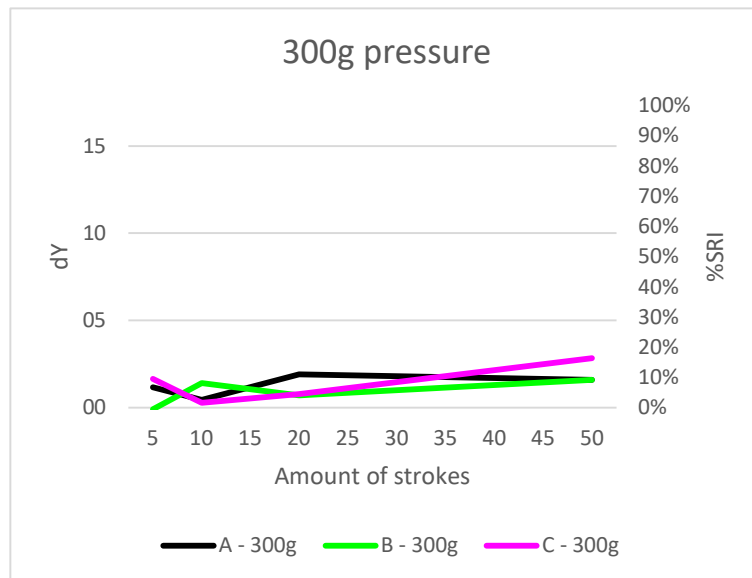
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



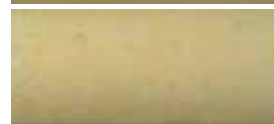
**Reliability Ratio:**



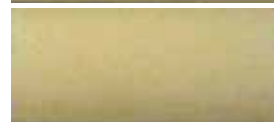
Example soil removal pictures



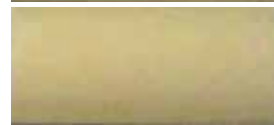
1 stroke



10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-31

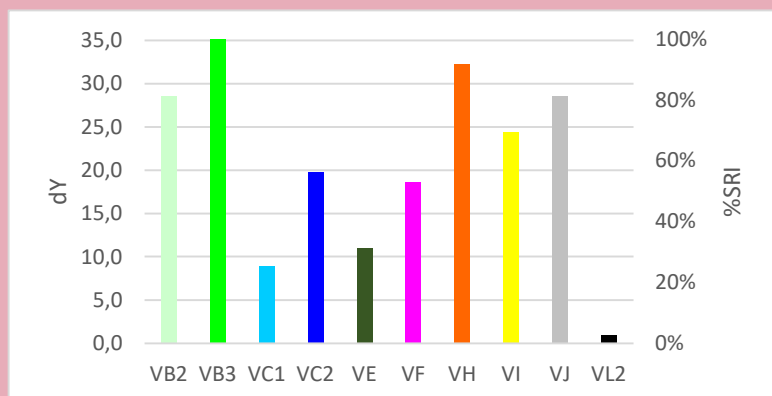
## Egg yolk with milk



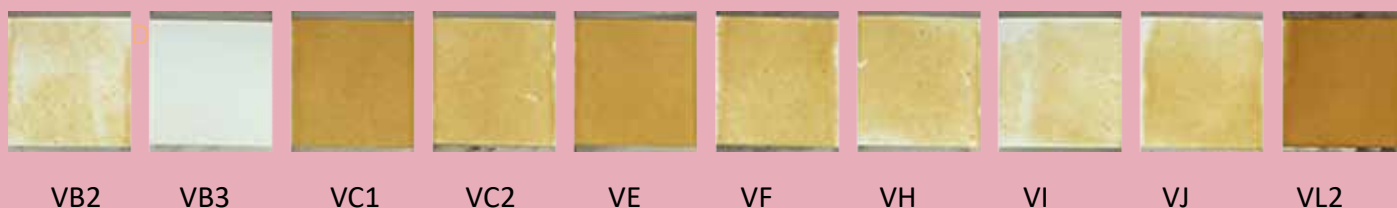
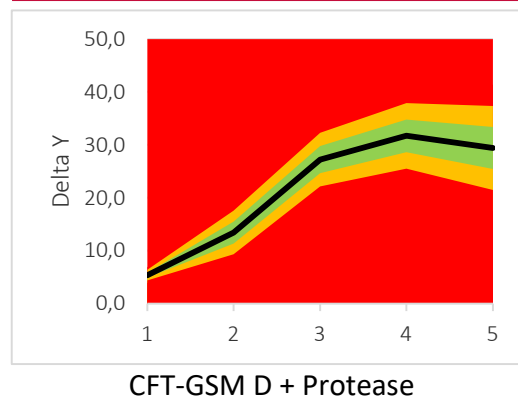
Discriminative Power: ★★ ★★ ★★ ★★ ★★  
 Reproducibility Ratio: ★★ ★★ ★★ ★★ ★★  
 Reliability Ratio: ★★ ★★ ★★ ★★ ★★  
 Popularity: ★★ ★★ ★★ ★★ ★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-31	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-31	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-31	Steel plate, smooth (DS H)	120 x 100 x 1	44,4
DG-31	Glass plate, smooth (DG H)	120 x 100 x 2	87,5
DP-31	Plastic (PP) tile, smooth (DP H)	120 x 100 x 1,2	84,1

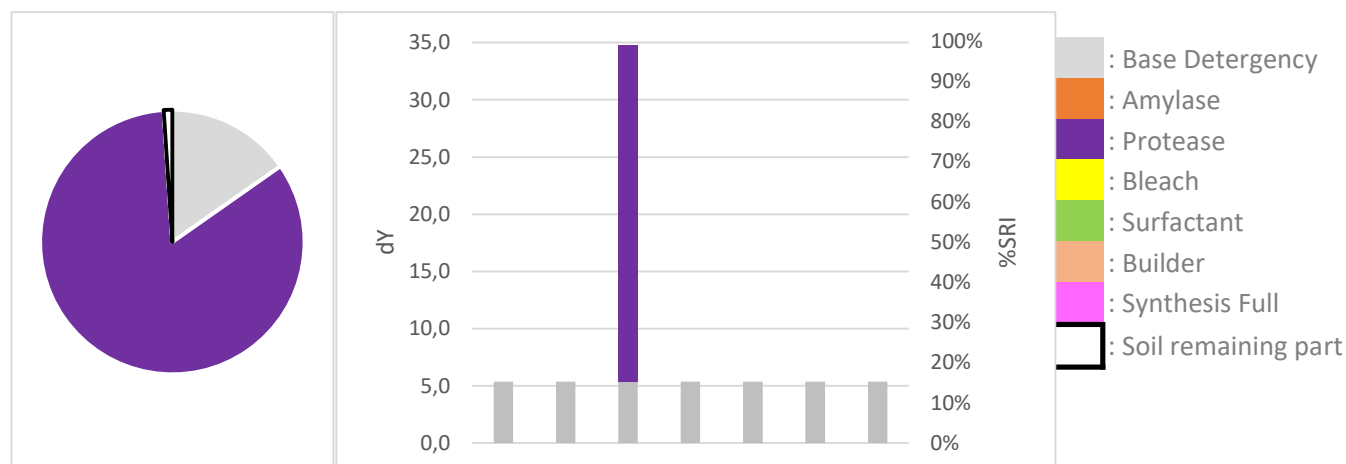
### Autodish detergent comparison



### Quality Control

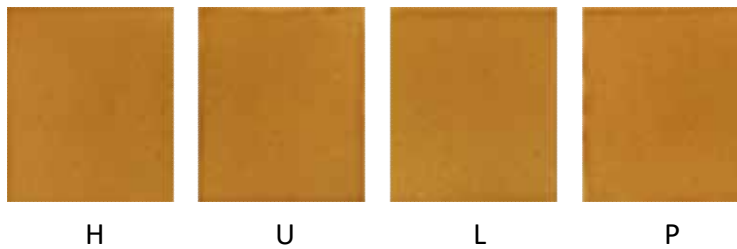
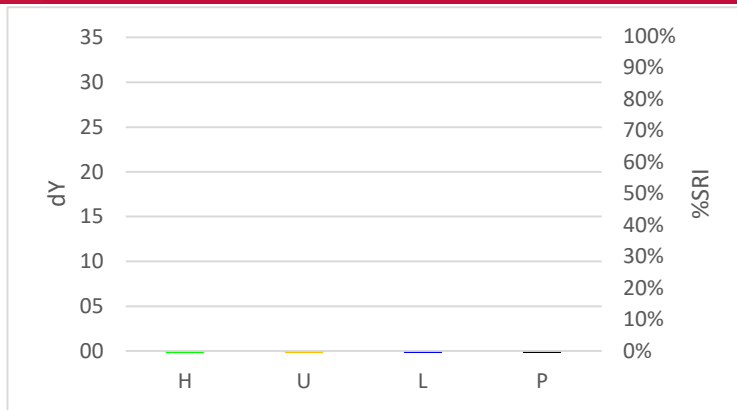


### Autodish detergent component response





## Professional cleaning detergent comparison



DM-31

Discriminative Power:



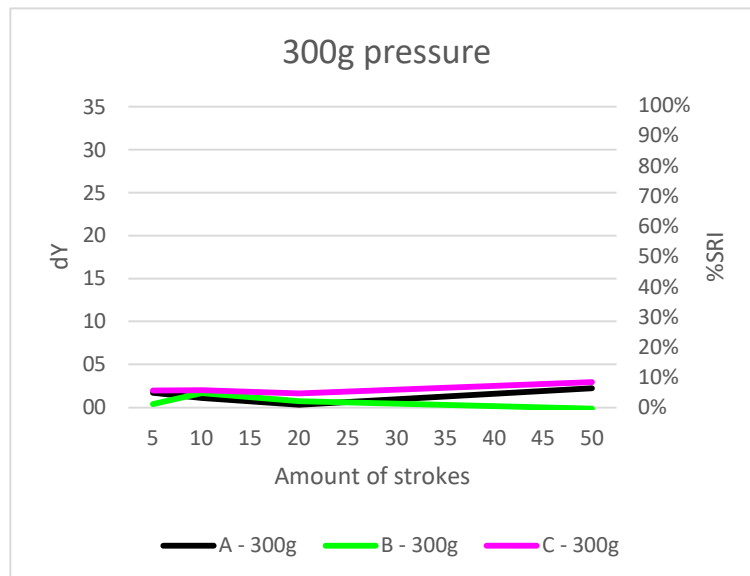
Reproducibility Ratio:



Reliability Ratio:



## Hand dishwash detergent comparison



Discriminative Power:



Reproducibility Ratio:



Reliability Ratio:



Example soil removal pictures



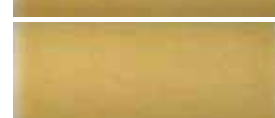
1 stroke



10 strokes



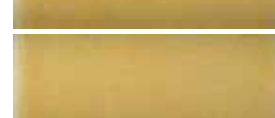
20 strokes



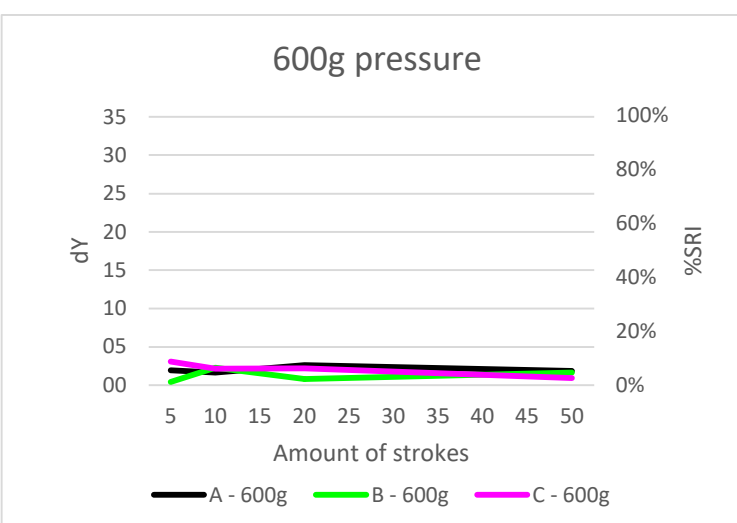
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-32

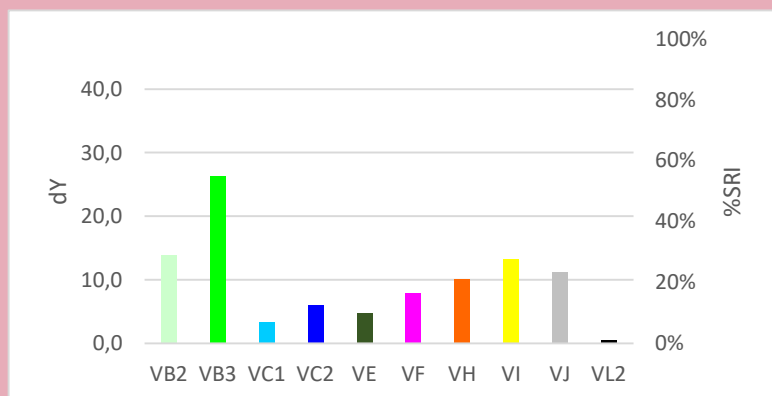
## Egg yolk with milk, double soil load



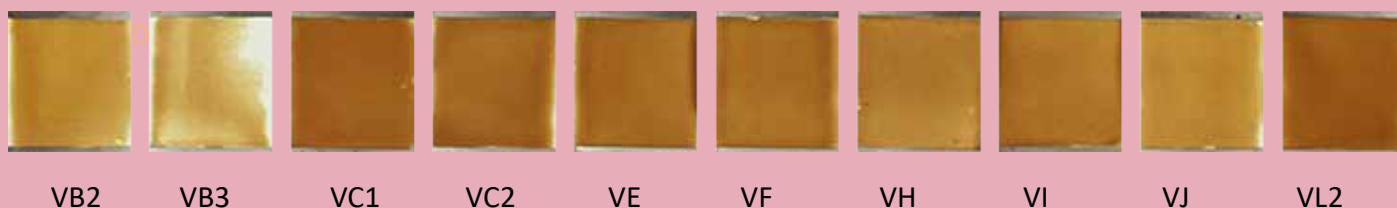
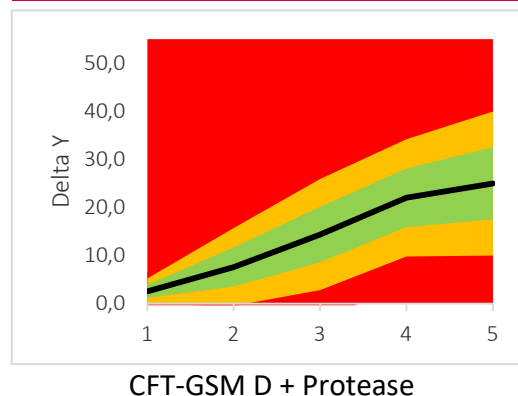
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-32	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-32	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-32	Steel plate, smooth (DS H)	120 x 100 x 1	44,4
DG-32	Glass plate, smooth (DG H)	120 x 100 x 2	87,5
DP-32	Plastic (PP) tile, smooth (DP H)	120 x 100 x 1,2	84,1

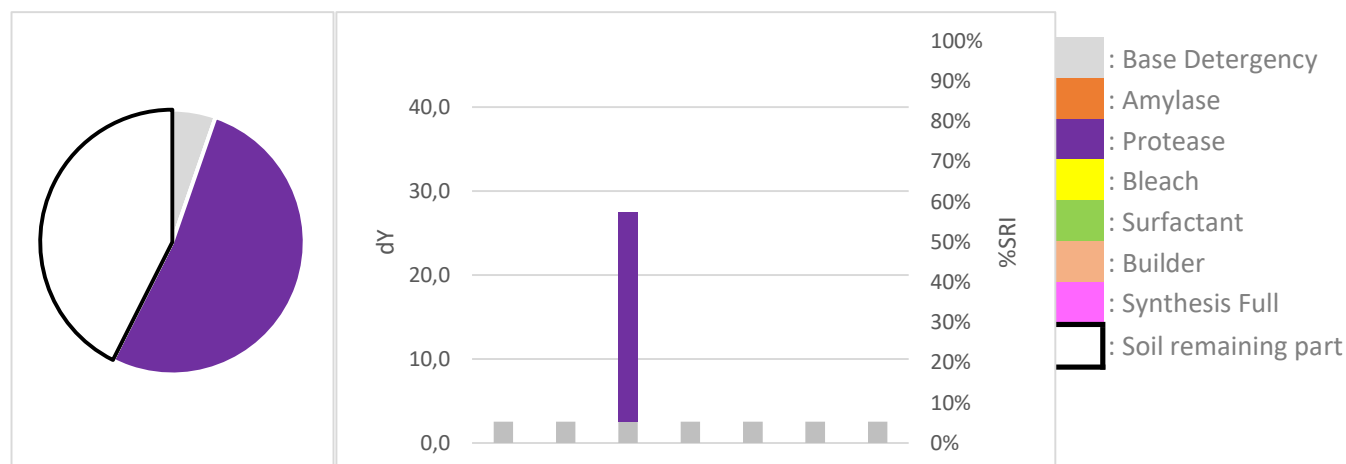
### Autodish detergent comparison



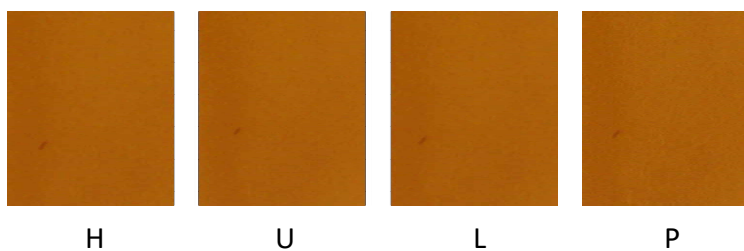
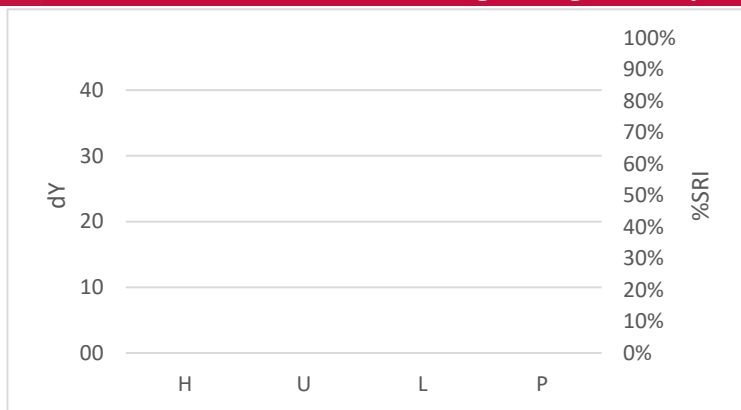
### Quality Control



### Autodish detergent component response

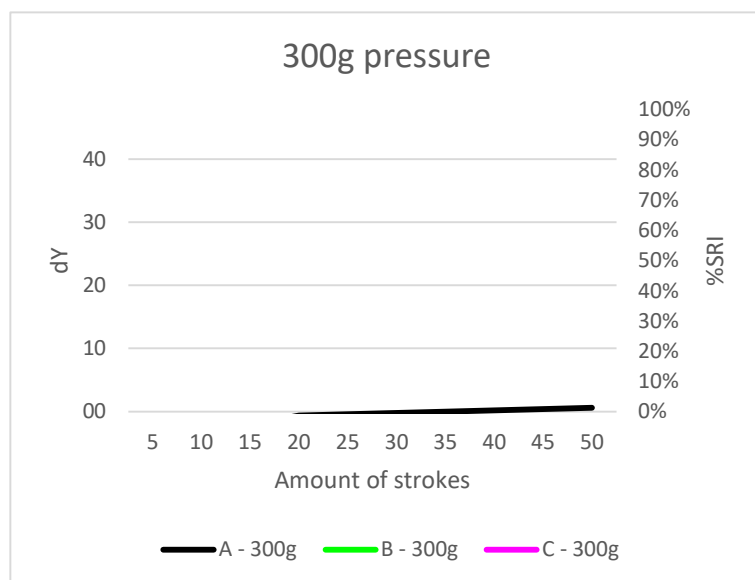


## Professional cleaning detergent comparison



**Discriminative Power:** ★☆☆☆☆  
**Reproducibility Ratio:** ★★☆☆☆  
**Reliability Ratio:** ★★★★★

## Hand dishwash detergent comparison



**Discriminative Power:** ★★★★★  
**Reproducibility Ratio:** ★★☆☆☆  
**Reliability Ratio:** ★★★★★

### Example soil removal pictures



1 stroke



10 strokes



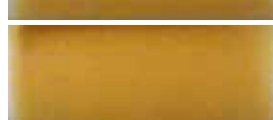
20 strokes



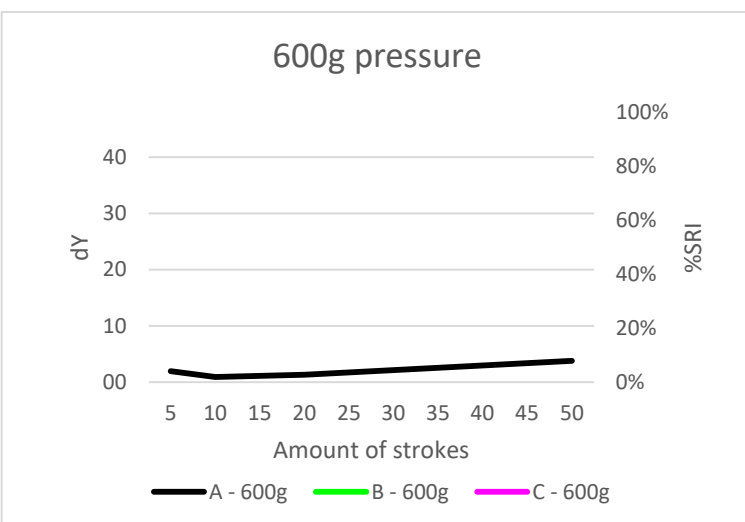
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 50x  
 Amount of pressure: 600g  
 Speed cycles/min: 20  
 Length in mm: 200  
 Utensil: CFT sponge (soft)  
 Application method: SOAK

# DM-33

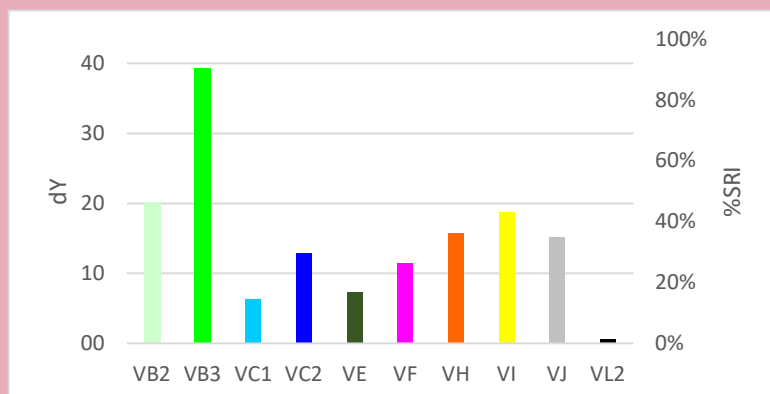
## Egg yolk with milk, 1.5x soil load



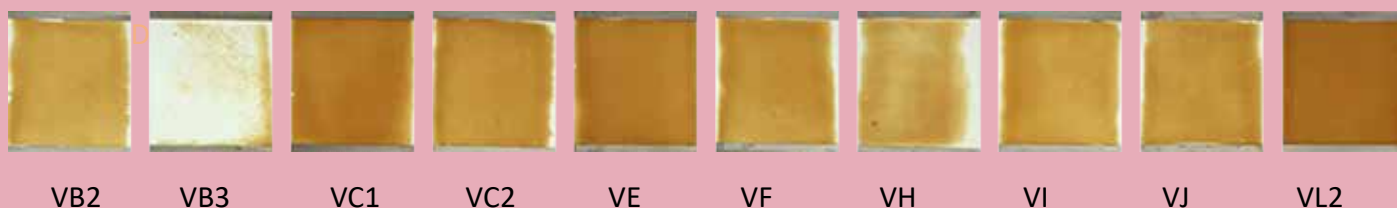
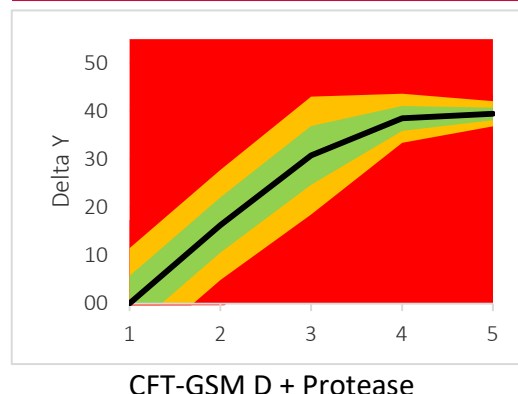
Discriminative Power: ★★★★★  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-33	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-33	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-33	Steel plate, smooth (DS H)	120 x 100 x 1	44,4
DG-33	Glass plate, smooth (DG H)	120 x 100 x 2	87,5
DP-33	Plastic (PP) tile, smooth (DP H)	120 x 100 x 1,2	84,1

### Autodish detergent comparison



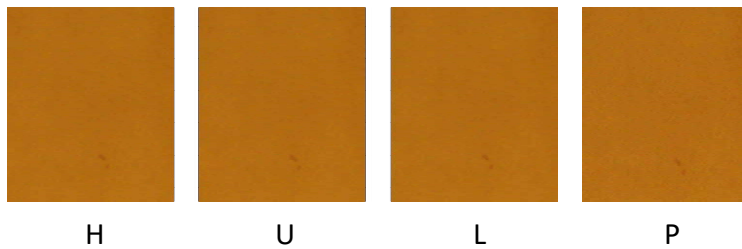
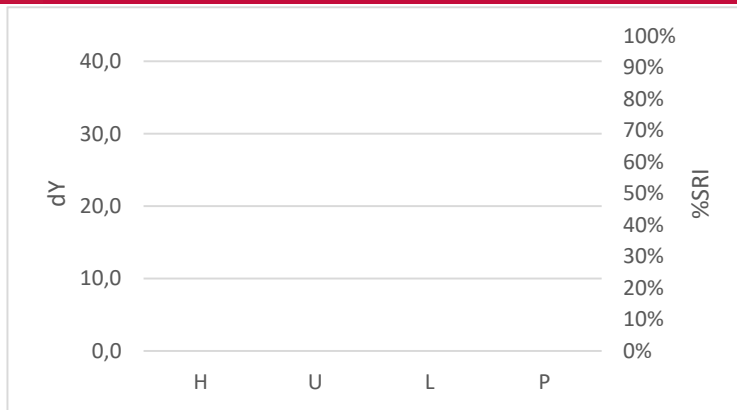
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**DM-33**

**Discriminative Power:**



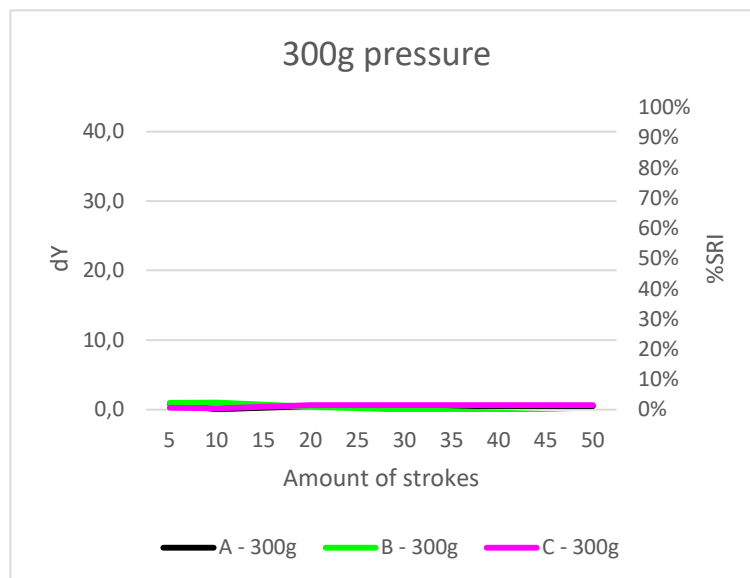
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



**Example soil removal pictures**



1 stroke



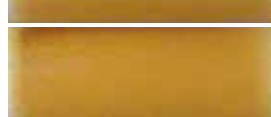
10 strokes



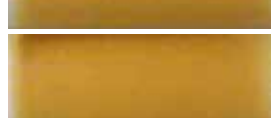
20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-34

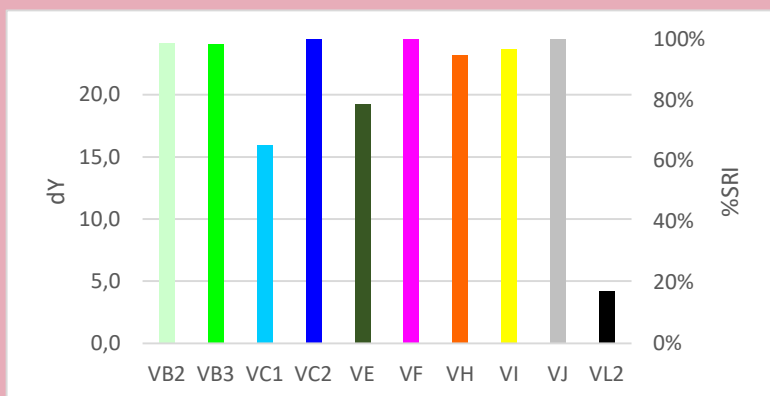
Egg yolk with milk, 0.75x  
soil load



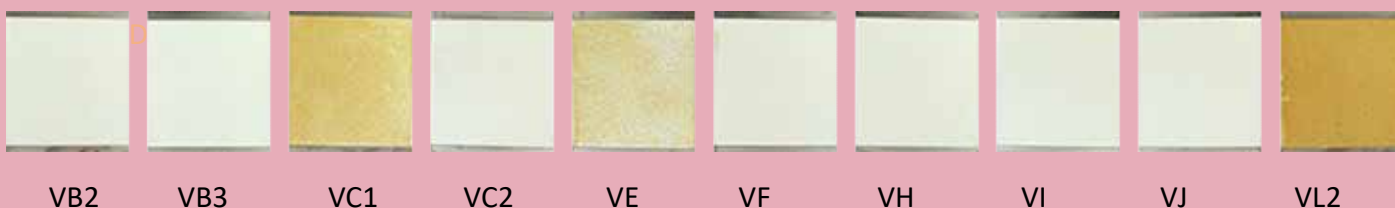
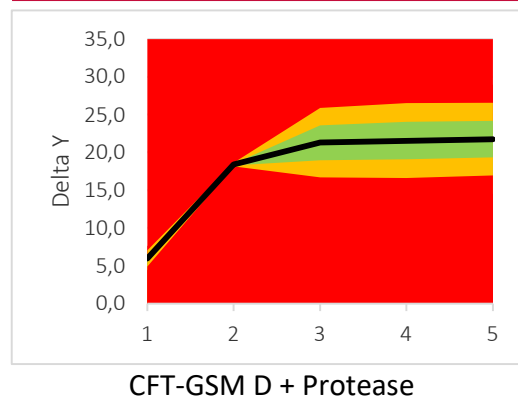
Discriminative Power: ★★☆☆☆  
Reproducibility Ratio: ★★☆☆☆  
Reliability Ratio: ★★☆☆☆  
Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-34	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-34	Technical Porcelain (DT H)	120 x 100 x 1	87,2

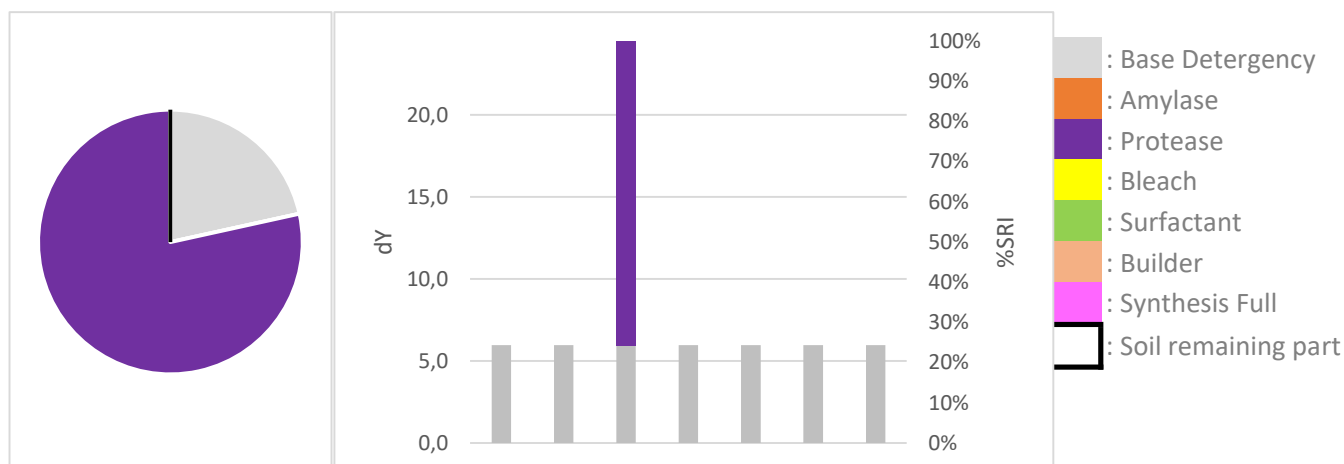
## Autodish detergent comparison



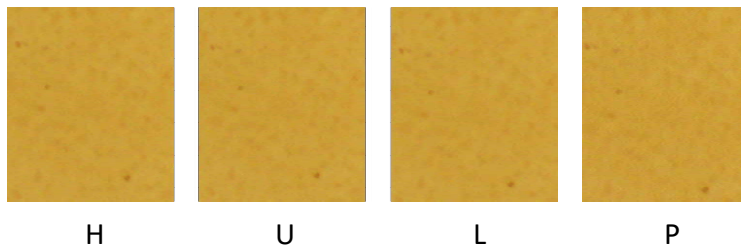
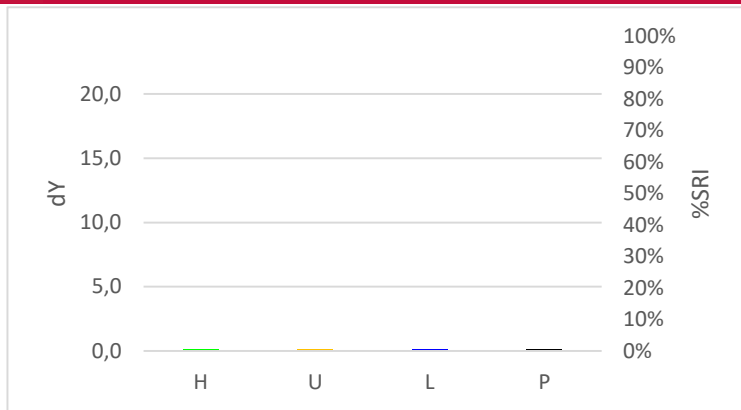
## Quality Control



## Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



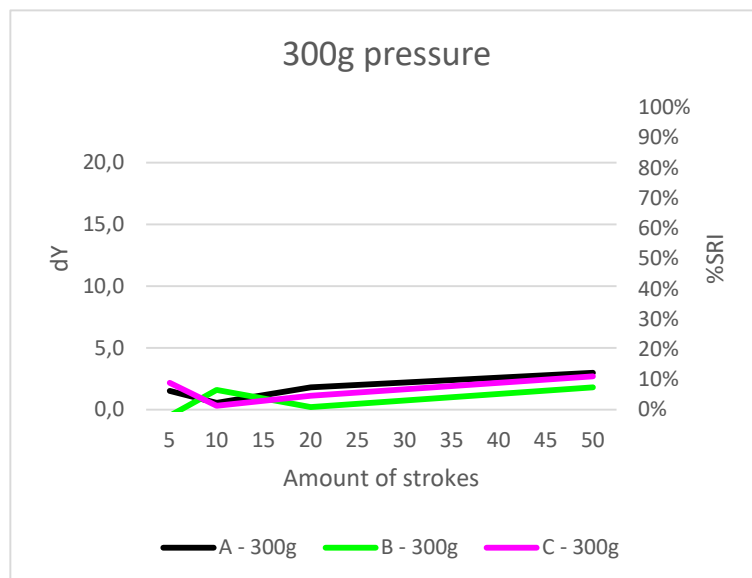
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



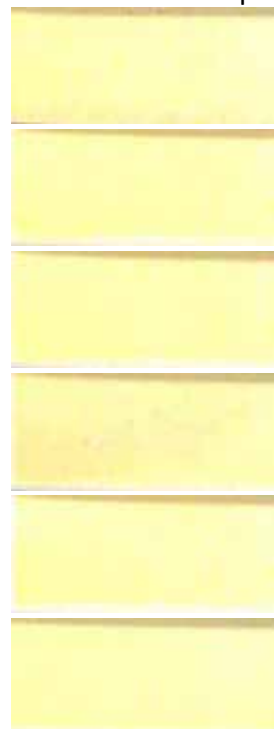
**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke

10 strokes

20 strokes

30 strokes

40 strokes

50 strokes

### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK



# DM-40X

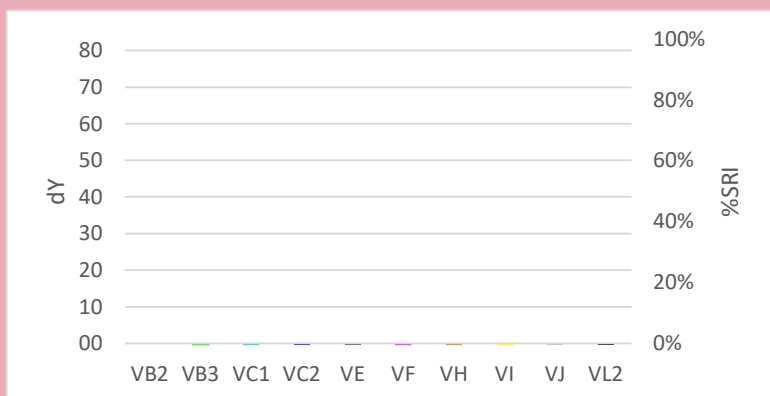
Olive oil with pigment 10  
pcs (2 packs of 5 pcs)



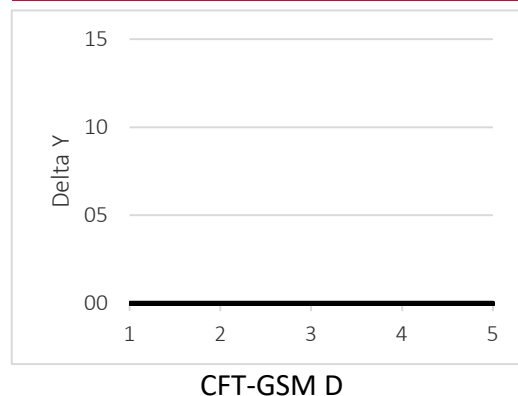
Discriminative Power: ★☆☆☆☆  
Reproducibility Ratio: ★★☆☆☆  
Reliability Ratio: ★★★★★  
Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-40X	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-40X	Technical Porcelain (DT H)	120 x 100 x 1	87,2

## Autodish detergent comparison



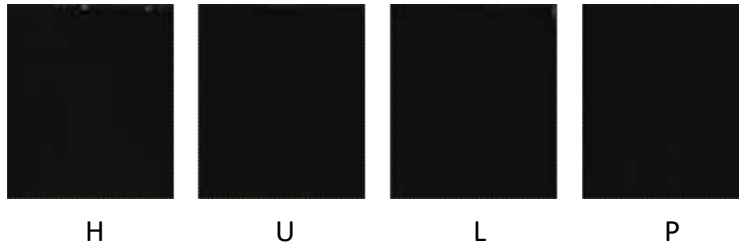
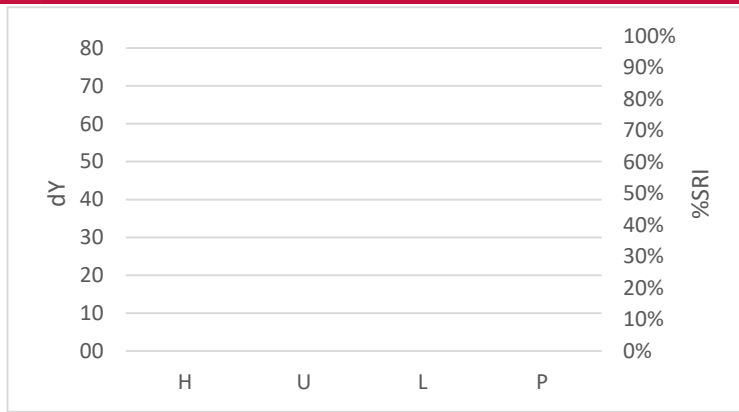
## Quality Control



## Autodish detergent component response



## Professional cleaning detergent comparison



# DM-40X

**Discriminative Power:**



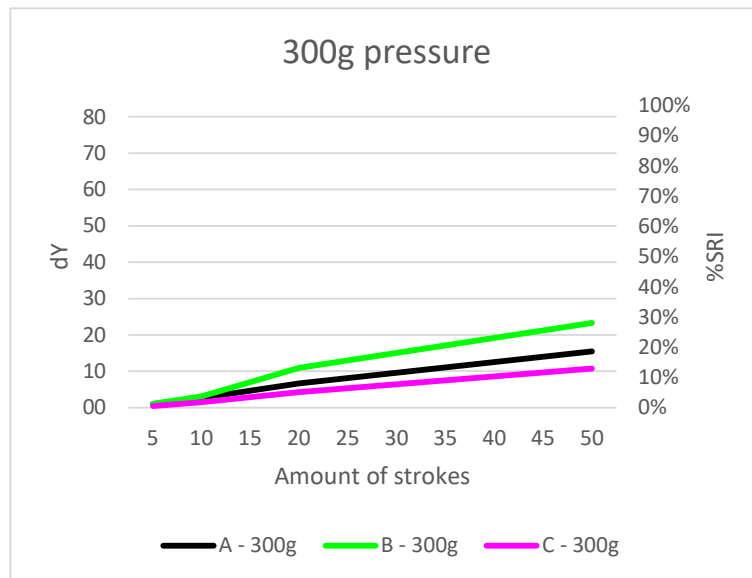
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



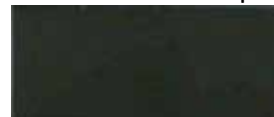
**Reproducibility Ratio:**



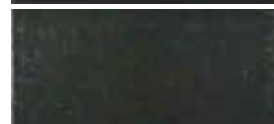
**Reliability Ratio:**



Example soil removal pictures



1 stroke



10 strokes



20 strokes



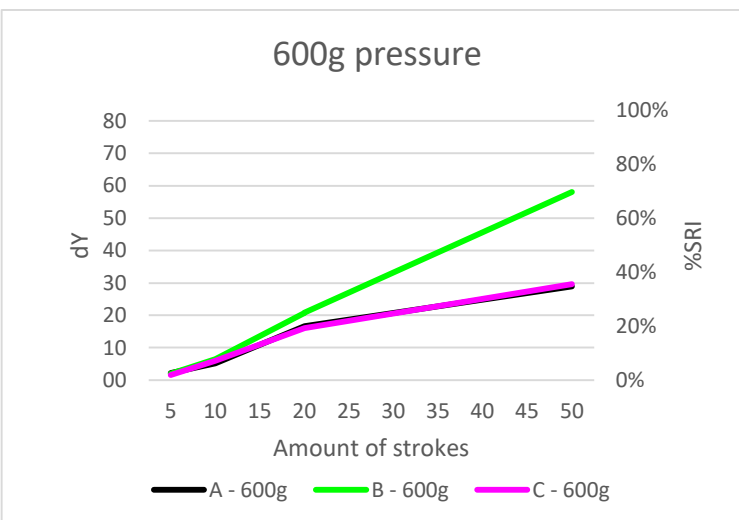
30 strokes



40 strokes



50 strokes



**Recommended TQC testing conditions**

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-42

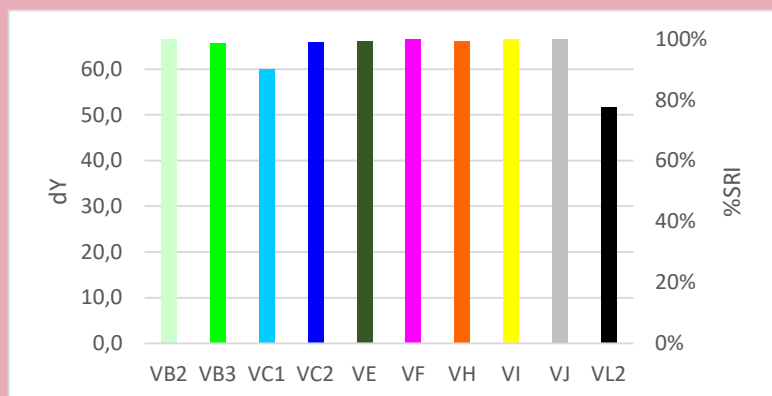
## Blueberry yoghurt



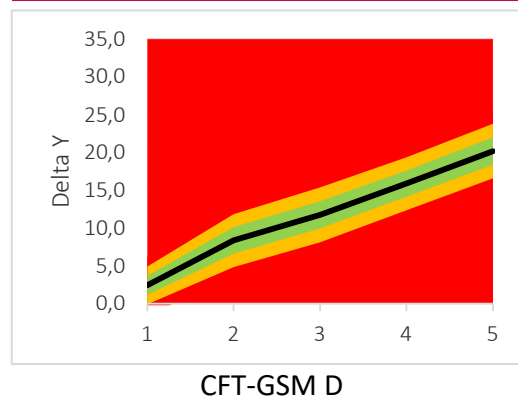
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-42	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-42	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DP-42	Plastic (PP) tile, smooth (DP H)	120 x 100 x 1,2	84,1

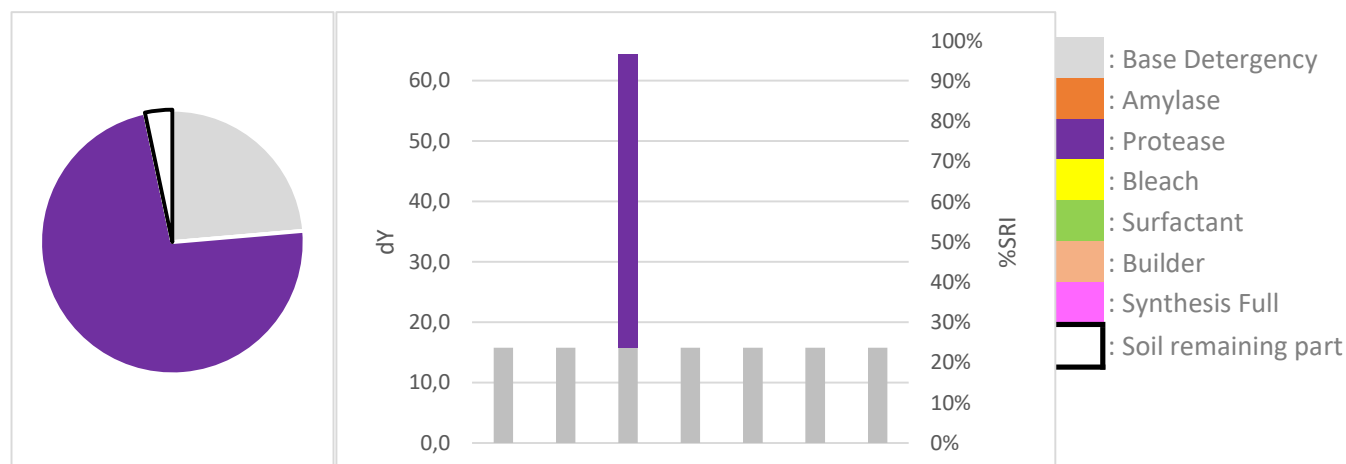
### Autodish detergent comparison



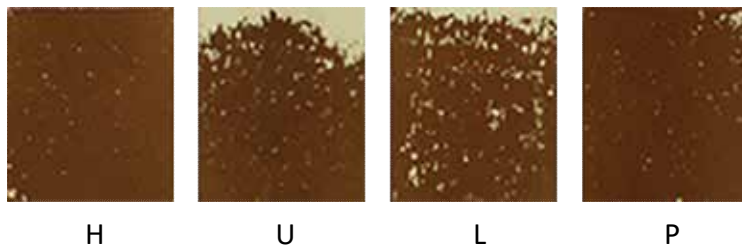
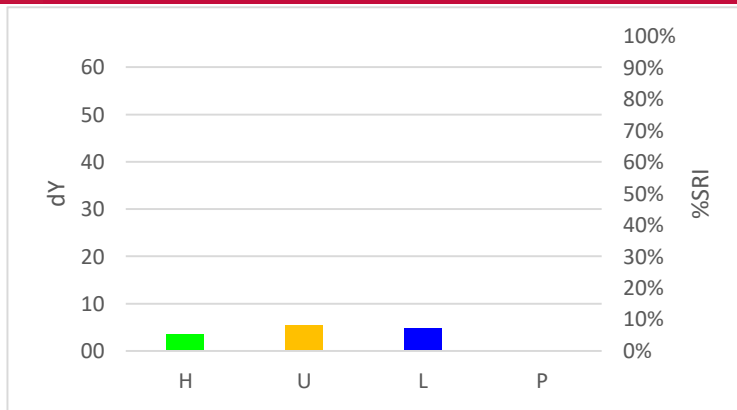
### Quality Control



### Autodish detergent component response



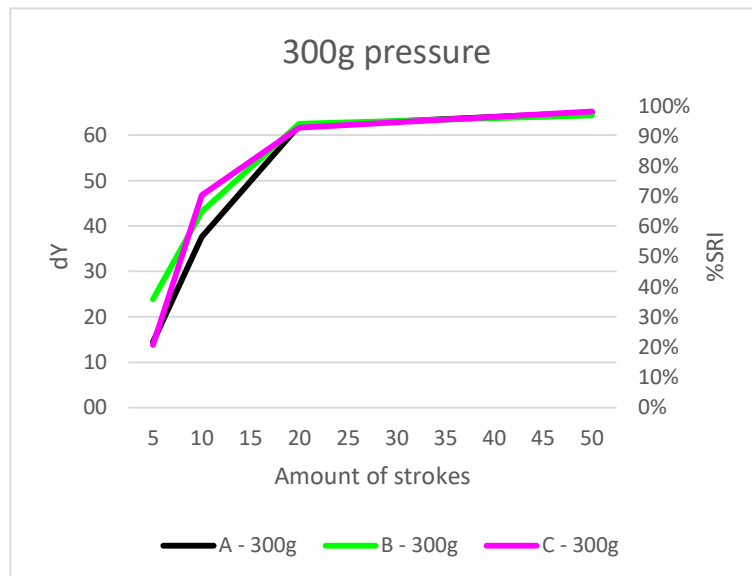
## Professional cleaning detergent comparison



**Discriminative Power:** ★★☆☆☆  
**Reproducibility Ratio:** ★★☆☆☆  
**Reliability Ratio:** ★★☆☆☆

# DM-42

## Hand dishwash detergent comparison



**Discriminative Power:** ★★☆☆☆  
**Reproducibility Ratio:** ★★☆☆☆  
**Reliability Ratio:** ★☆☆☆☆

### Example soil removal pictures



1 stroke



10 strokes



20 strokes



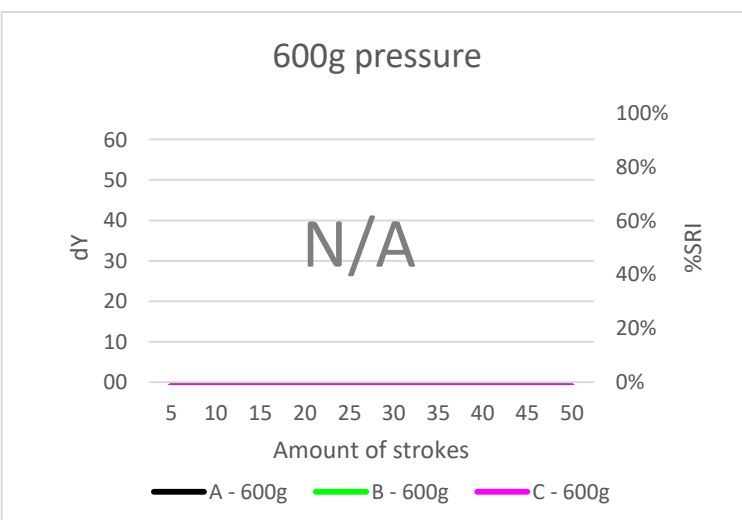
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

**Amount of cycles:** 5x  
**Amount of pressure:** 300g  
**Speed cycles/min:** 20  
**Length in mm:** 200  
**Utensil:** CFT sponge (soft)  
**Application method:** ABS

# DM-44

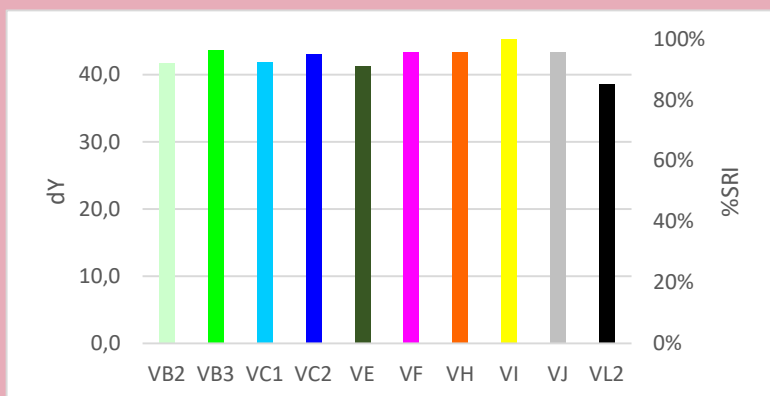
## IKW hand dish soil Normal



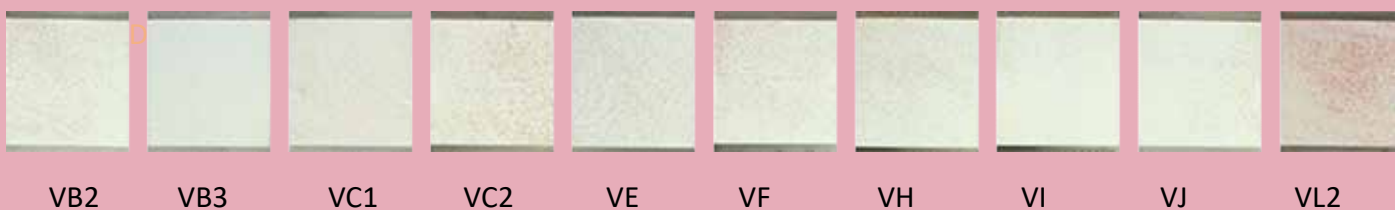
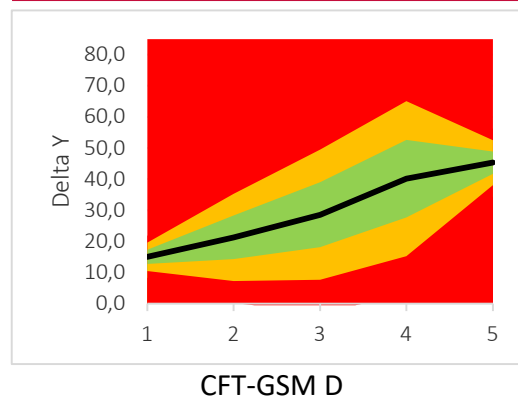
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-44	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-44	Technical Porcelain (DT H)	120 x 100 x 1	87,2

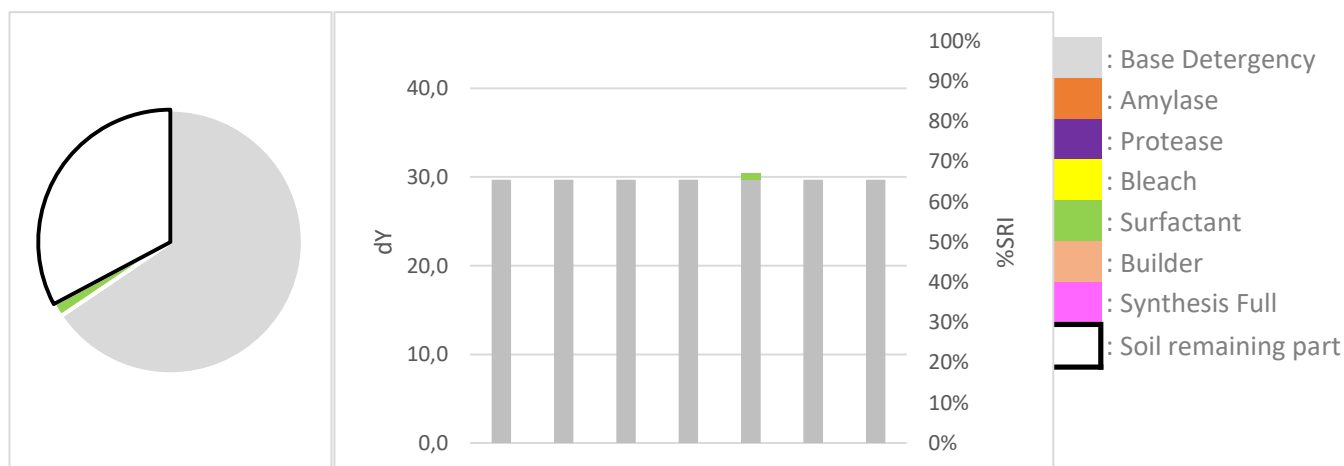
### Autodish detergent comparison



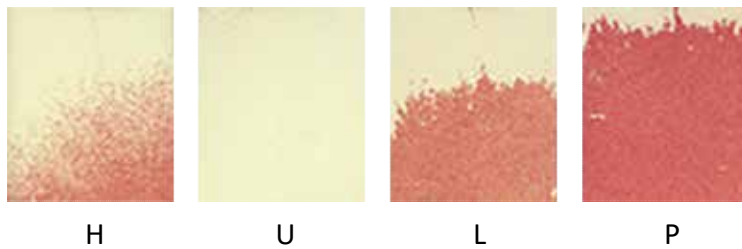
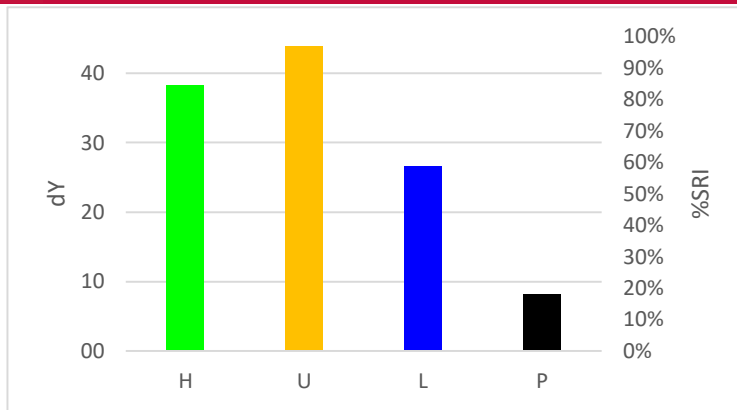
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-44

**Discriminative Power:**



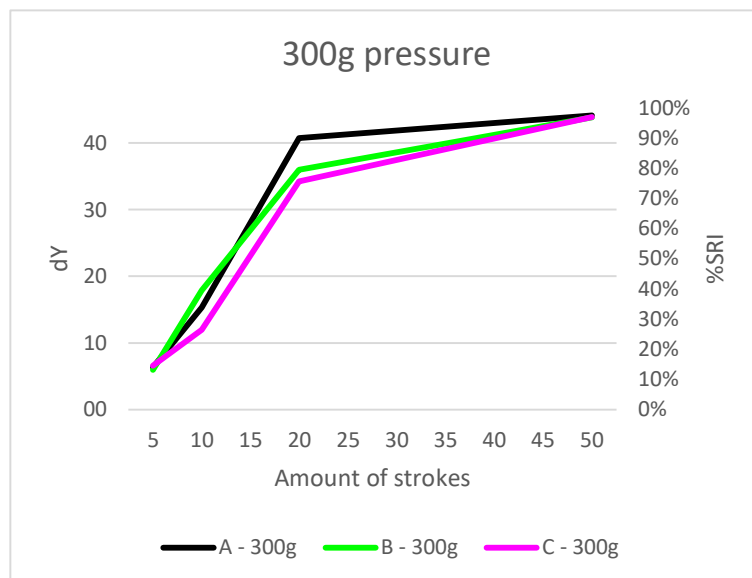
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke



10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles:

20x

Amount of pressure:

300g

Speed cycles/min:

20

Length in mm:

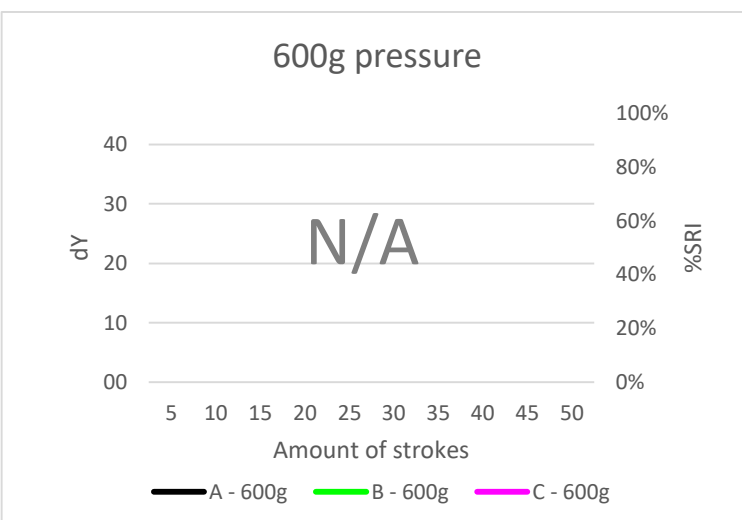
200

Utensil:

CFT sponge (soft)

Application method:

ABS



# DM-45

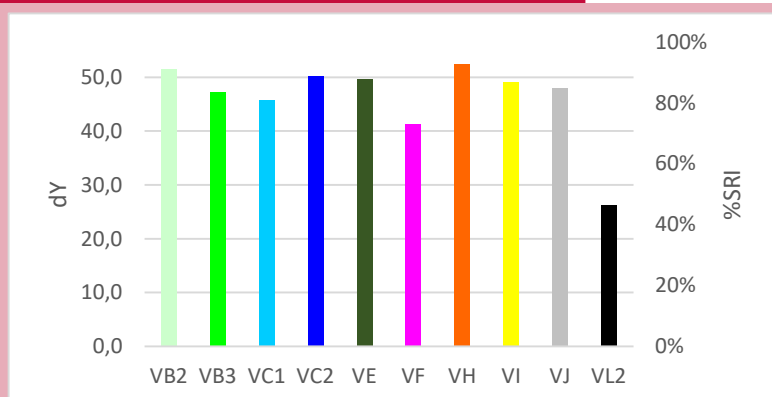
## Fat mix with food colourant



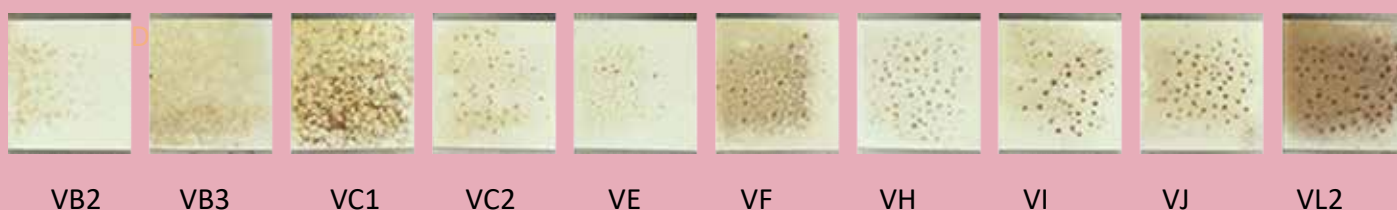
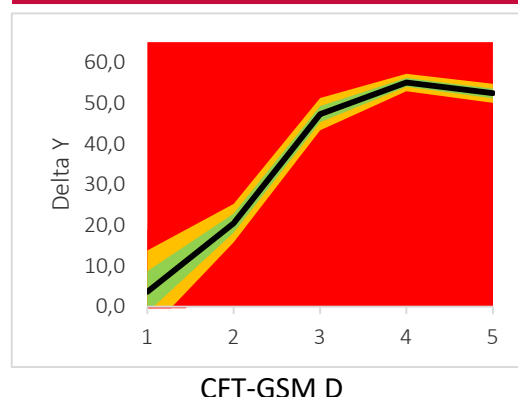
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-45	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-45	Technical Porcelain (DT H)	120 x 100 x 1	87,2

### Autodish detergent comparison



### Quality Control

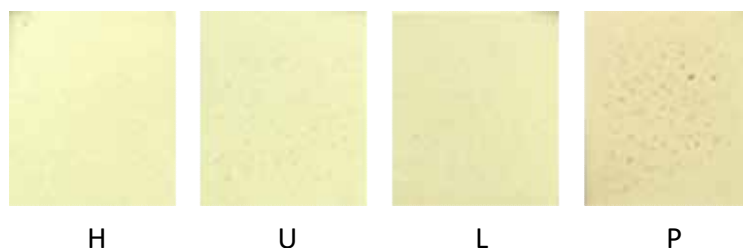
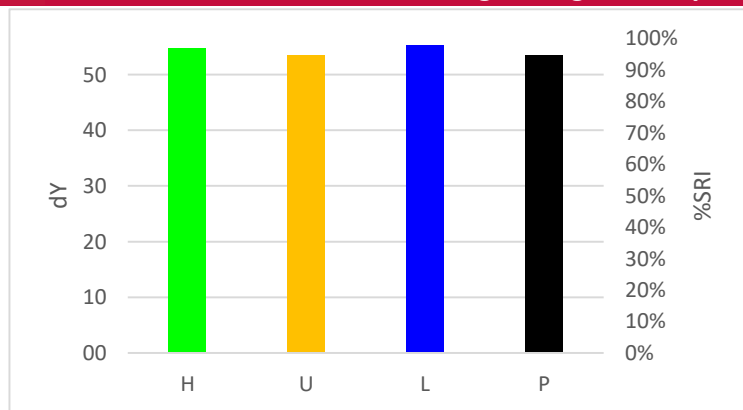


### Autodish detergent component response





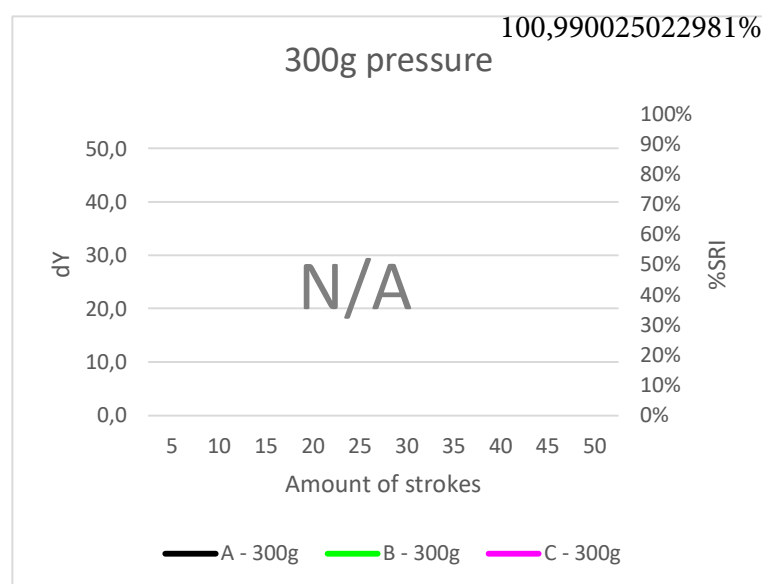
## Professional cleaning detergent comparison



DM-45

Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆

## Hand dishwash detergent comparison



Discriminative Power: ☆☆☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ☆☆☆☆☆

Example soil removal pictures

N/A	1 stroke
N/A	10 strokes
N/A	20 strokes
N/A	30 strokes
N/A	40 strokes
N/A	50 strokes

### Recommended TQC testing conditions

Amount of cycles: N/A  
 Amount of pressure: N/A  
 Speed cycles/min: N/A  
 Length in mm: N/A  
 Utensil: N/A  
 Application method: N/A

# DM-46

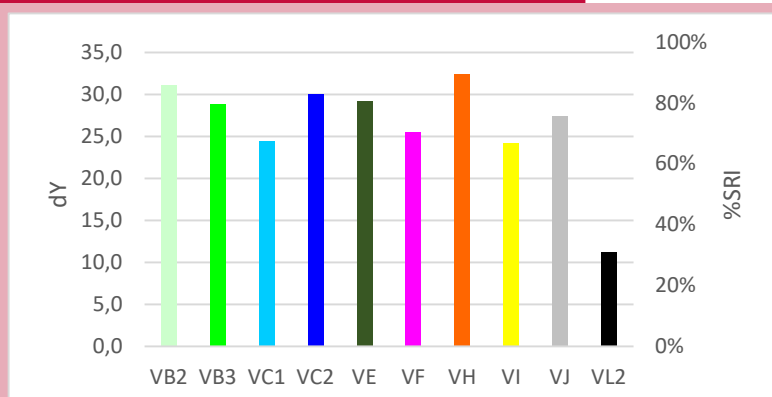
## Gravy



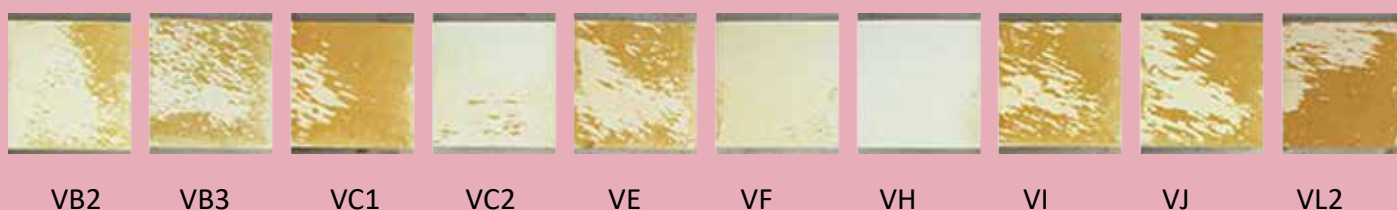
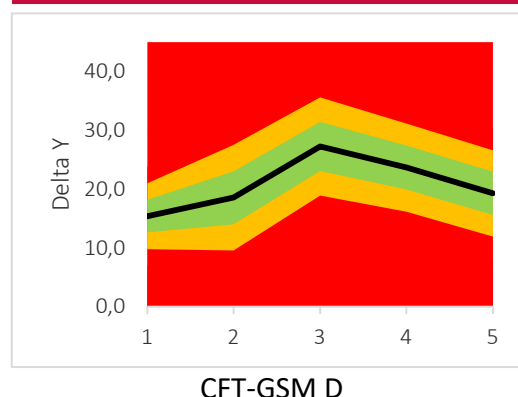
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★☆☆☆☆  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-46	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-46	Technical Porcelain (DT H)	120 x 100 x 1	87,2

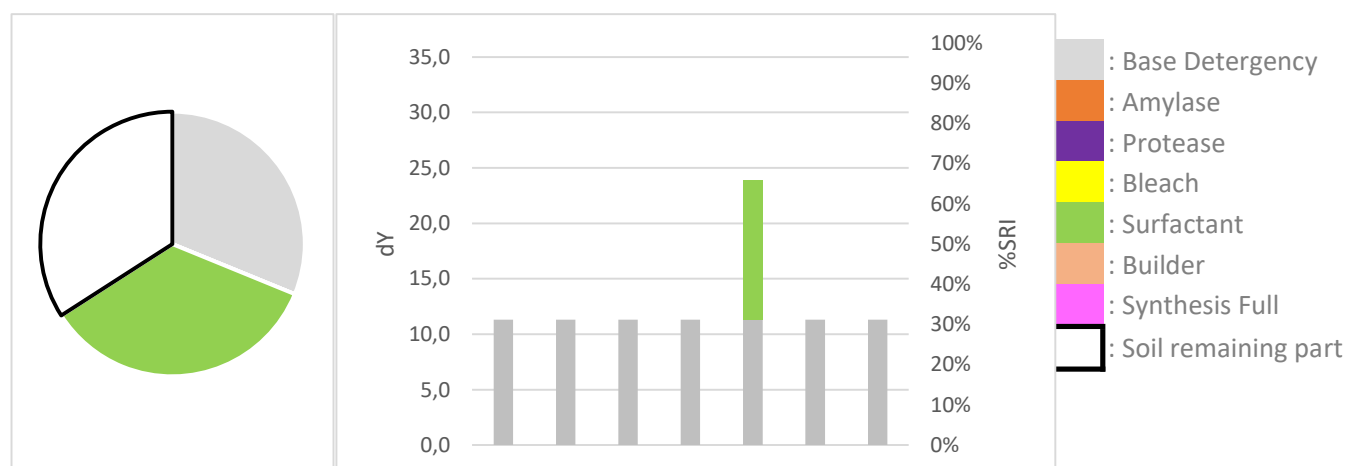
### Autodish detergent comparison



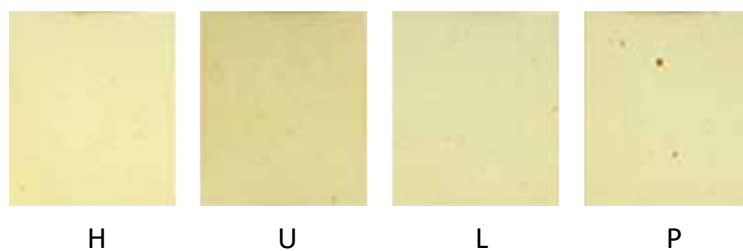
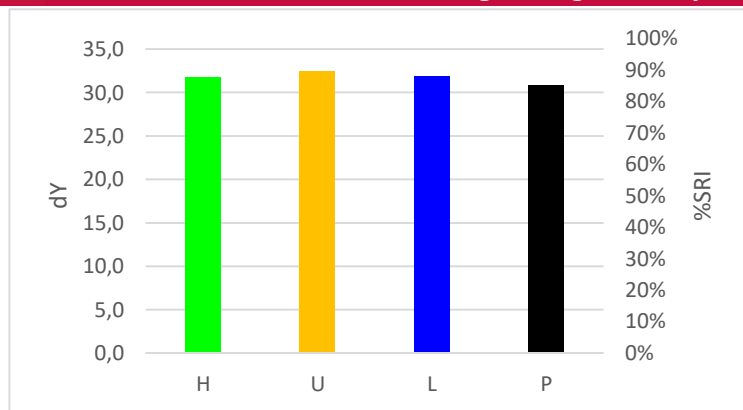
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**DM-46**

**Discriminative Power:**



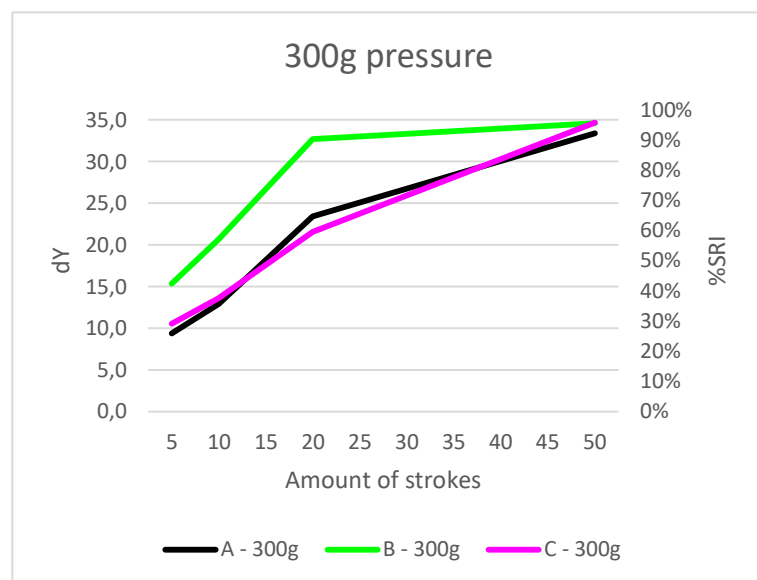
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



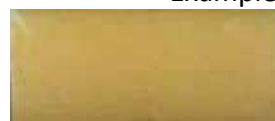
**Reproducibility Ratio:**



**Reliability Ratio:**



**Example soil removal pictures**



1 stroke



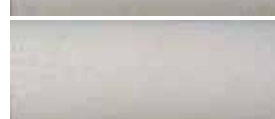
10 strokes



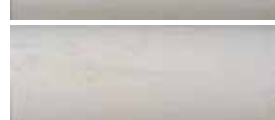
20 strokes



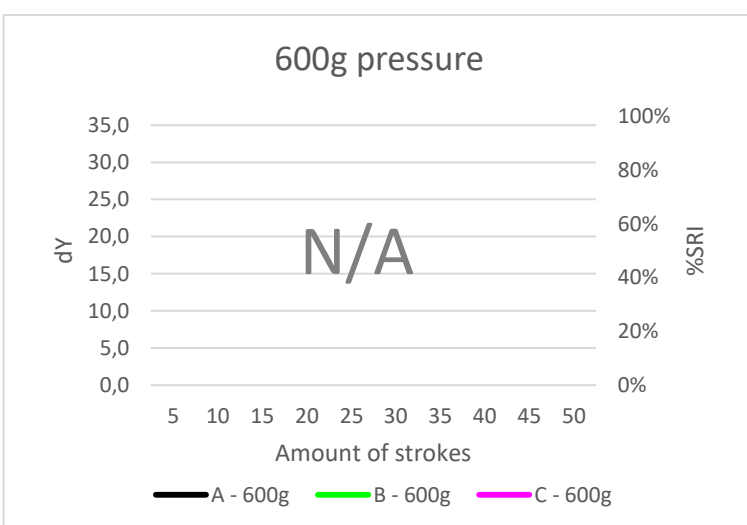
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 20x

Amount of pressure: 300g

Speed cycles/min: 20

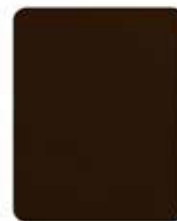
Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DS-47

## Baked on grease



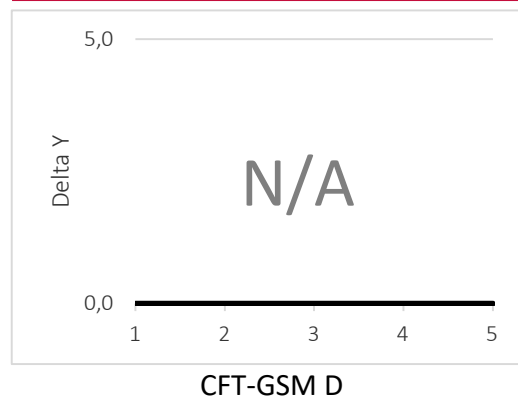
Discriminative Power: ☆☆☆☆☆  
 Reproducibility Ratio: ★☆☆☆☆  
 Reliability Ratio: ☆☆☆☆☆  
 Popularity: ★☆☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DT-47	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-47	Steel plate, smooth (DS H)	120 x 100 x 1	44,4

### Autodish detergent comparison

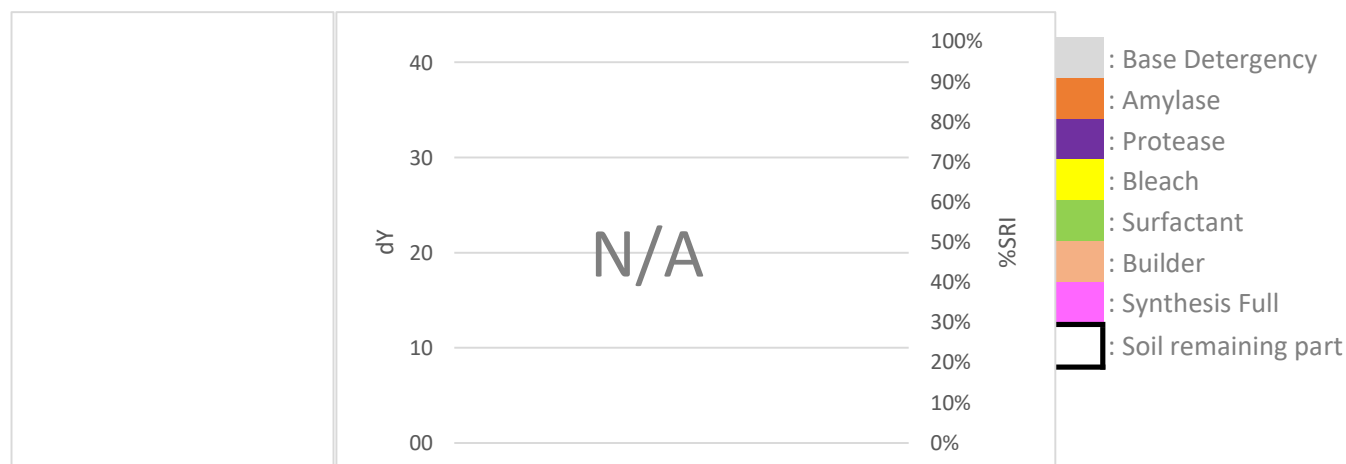


### Quality Control

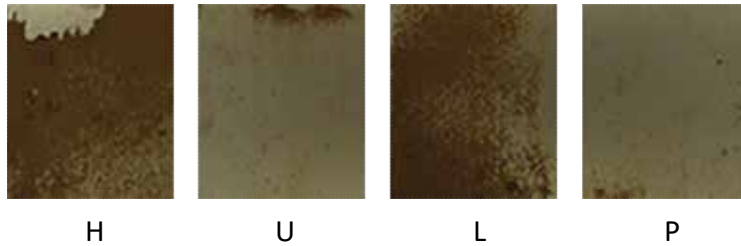
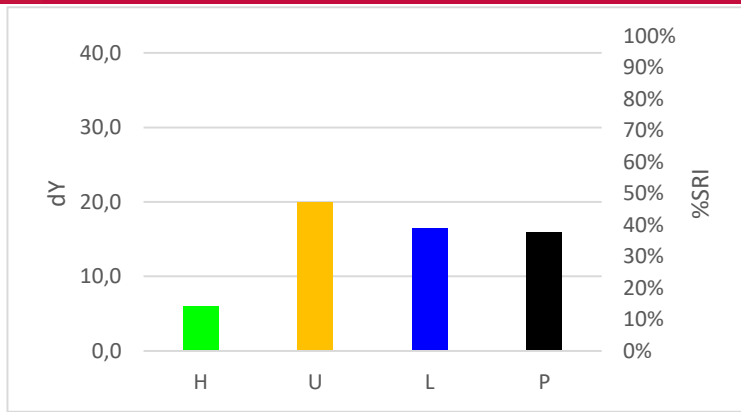


N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A  
 VB2 VB3 VC1 VC2 VE VF VH VI VJ VL2

### Autodish detergent component response



## Professional cleaning detergent comparison



# DS-47

**Discriminative Power:**



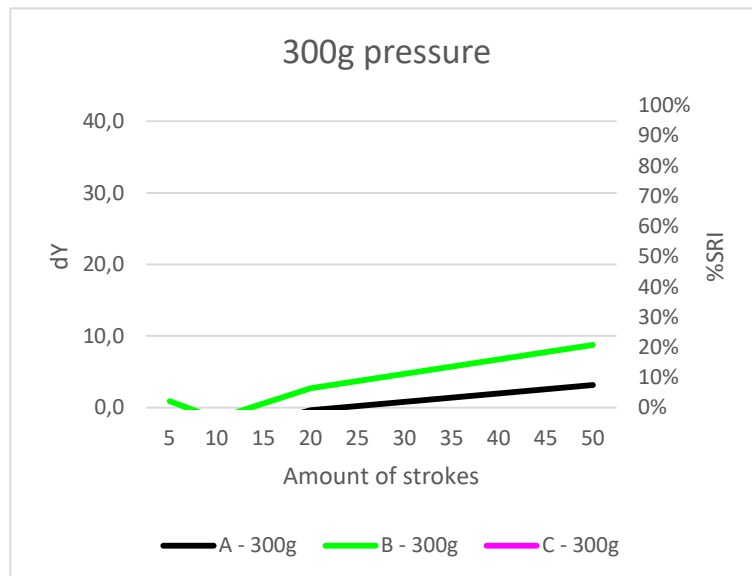
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke



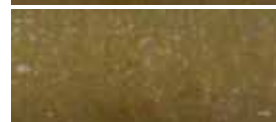
10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-51

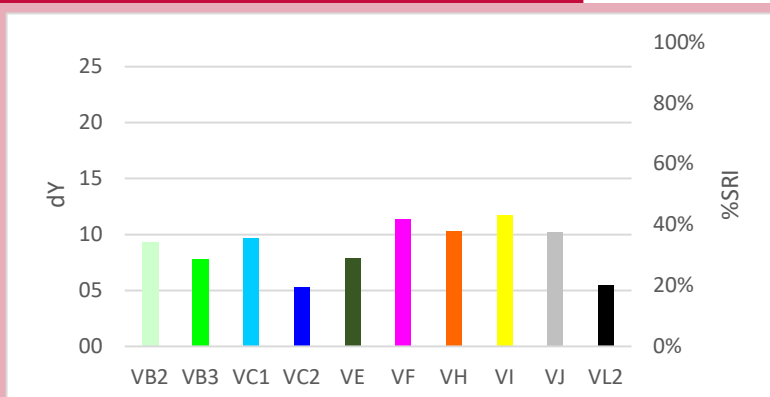
## Red wine



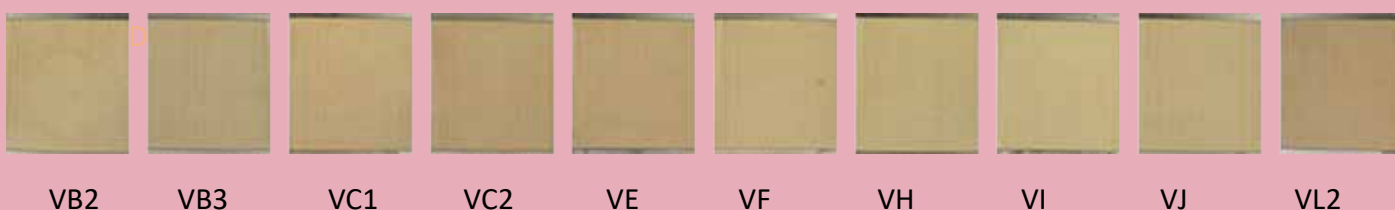
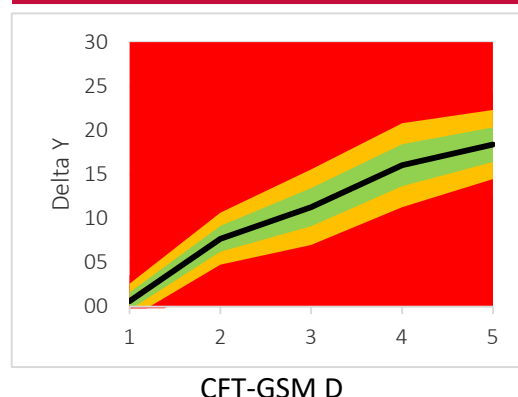
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-51	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6

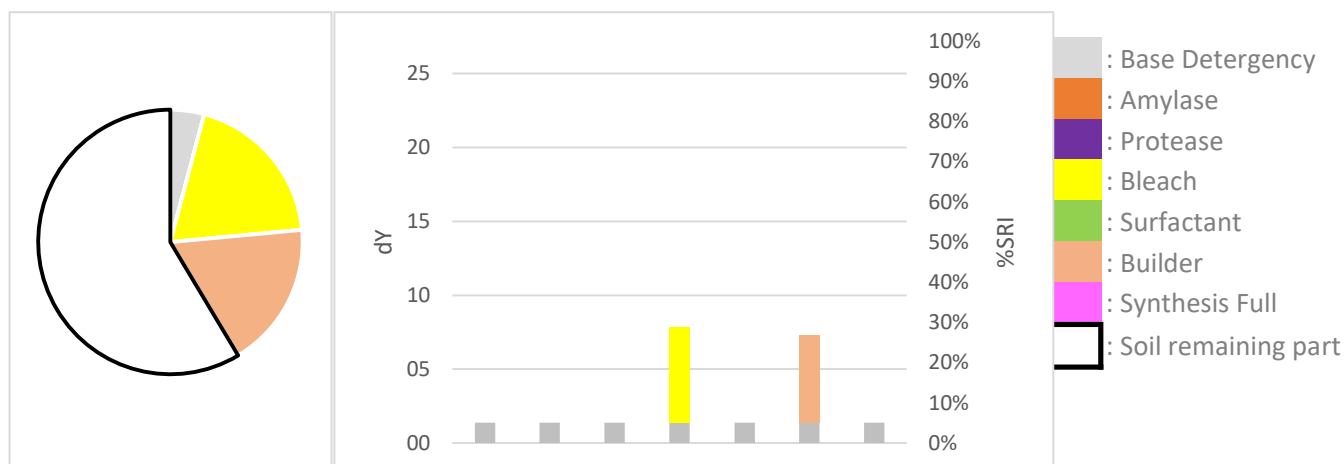
### Autodish detergent comparison



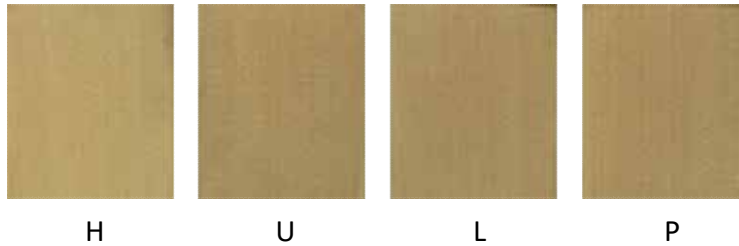
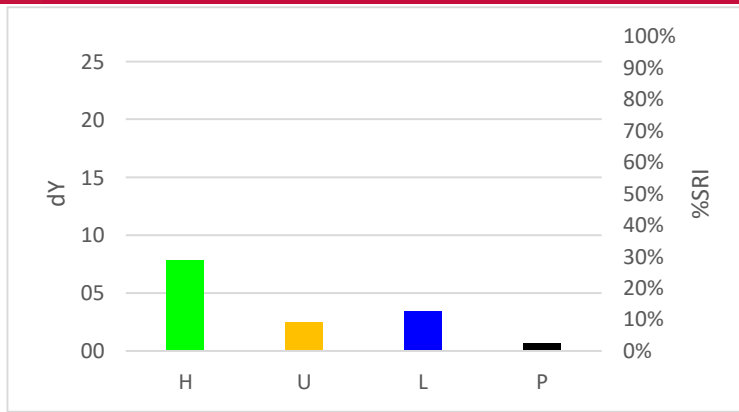
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



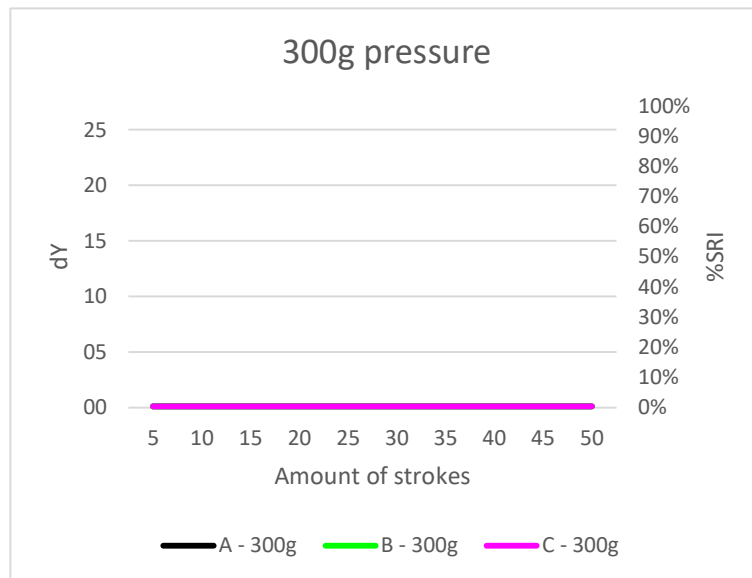
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



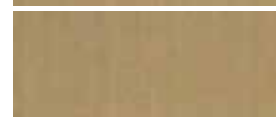
**Reliability Ratio:**



Example soil removal pictures



1 stroke



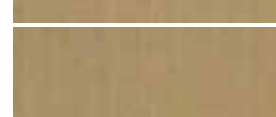
10 strokes



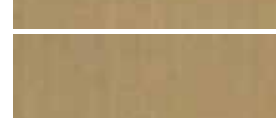
20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 5x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-54

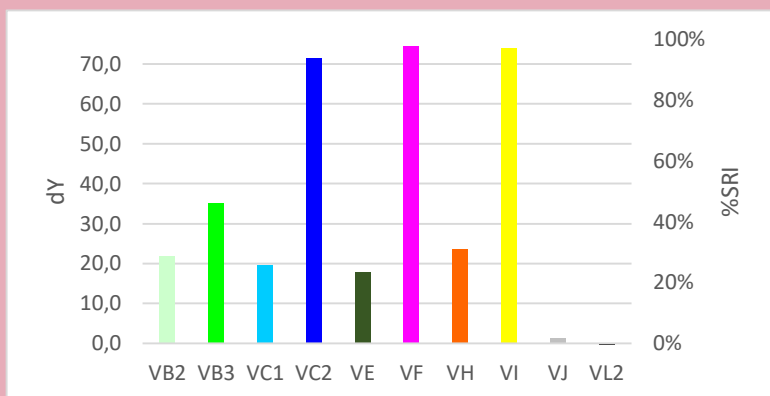
## Oatmeal, coloured with chocolate



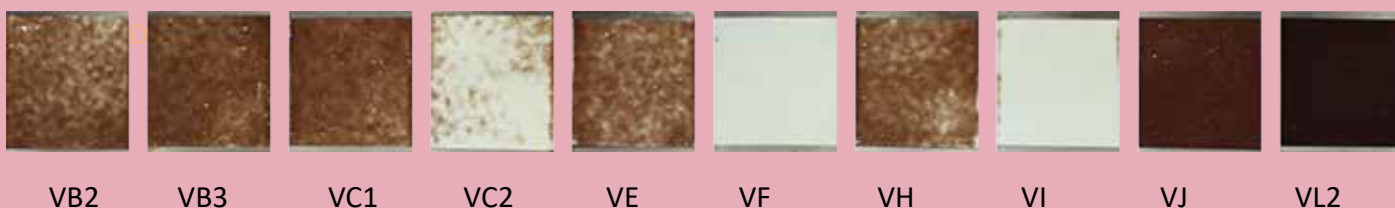
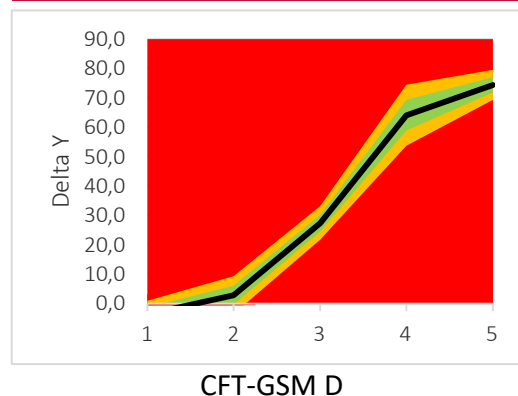
Discriminative Power: ★★★★★  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-54	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-54	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DP-54	Plastic (PP) tile, smooth (DP H)	120 x 100 x 1,2	84,1

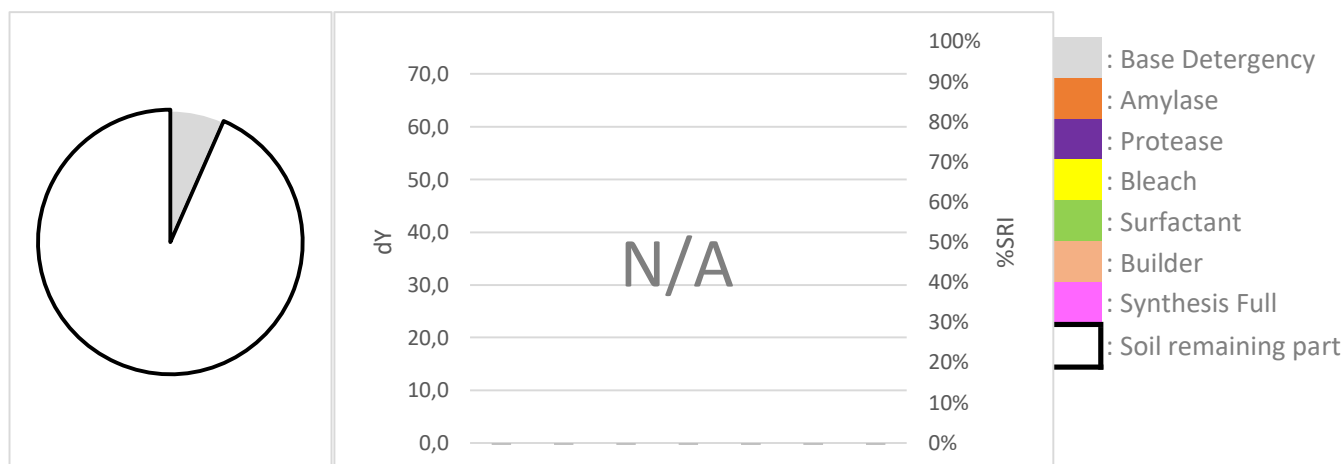
### Autodish detergent comparison



### Quality Control

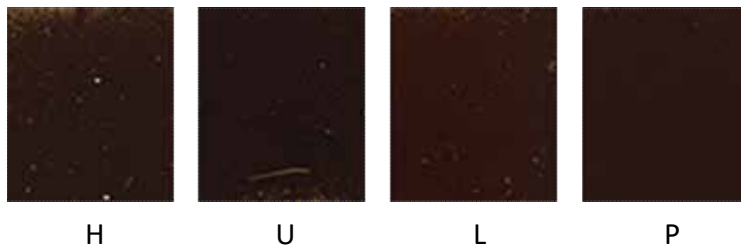


### Autodish detergent component response





## Professional cleaning detergent comparison



# DM-54

**Discriminative Power:**



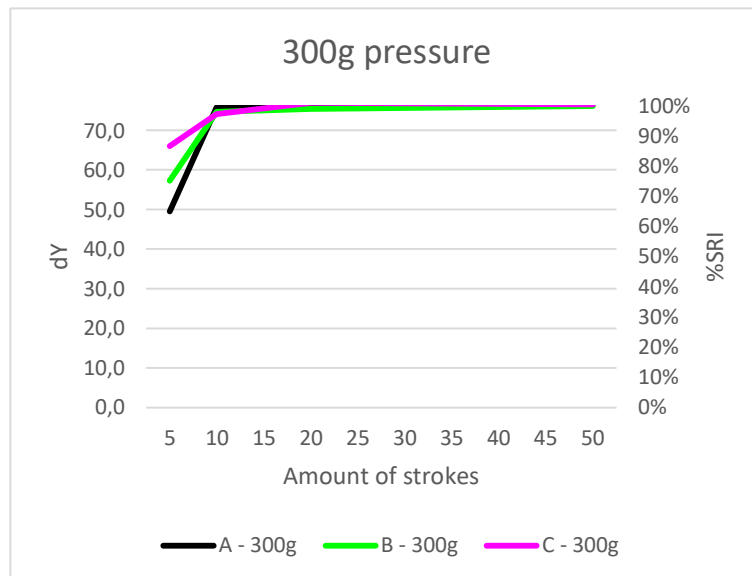
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



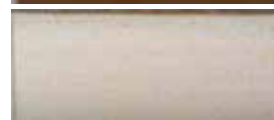
**Reliability Ratio:**



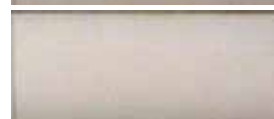
Example soil removal pictures



1 stroke



10 strokes



20 strokes



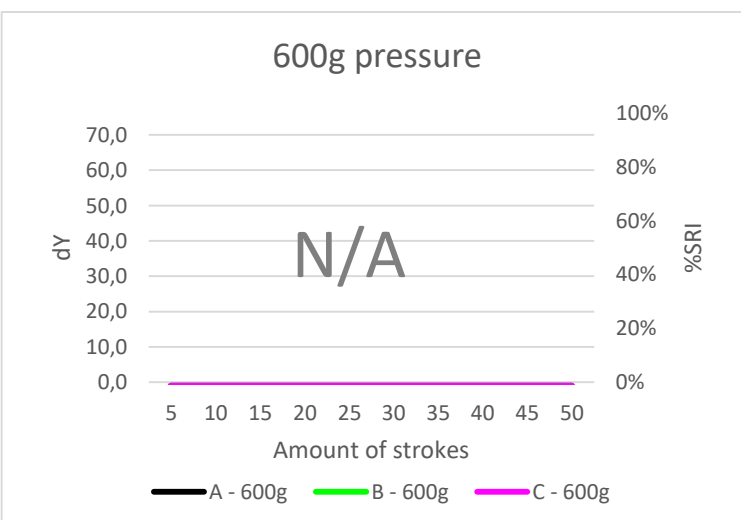
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 5x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-60

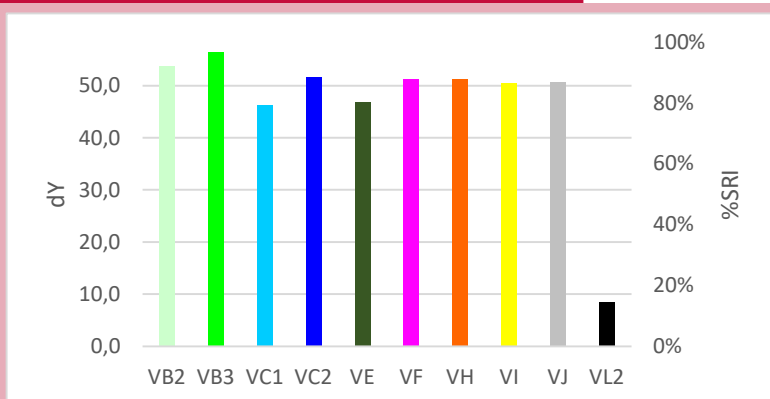
## Spinach



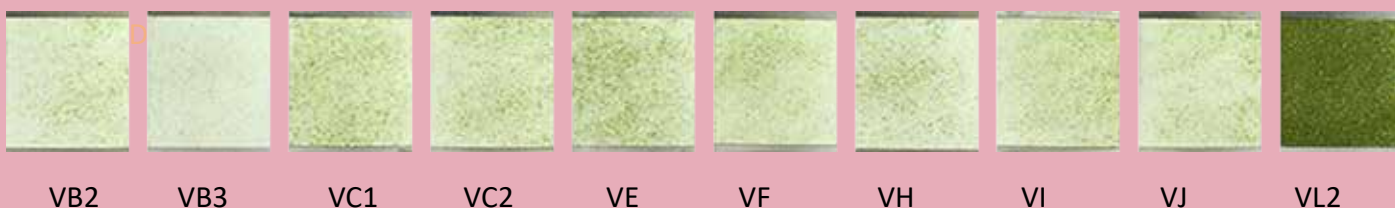
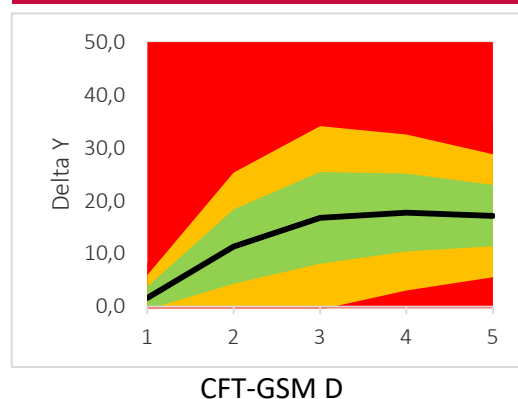
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★☆☆☆  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-60	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-60	Technical Porcelain (DT H)	120 x 100 x 1	87,2

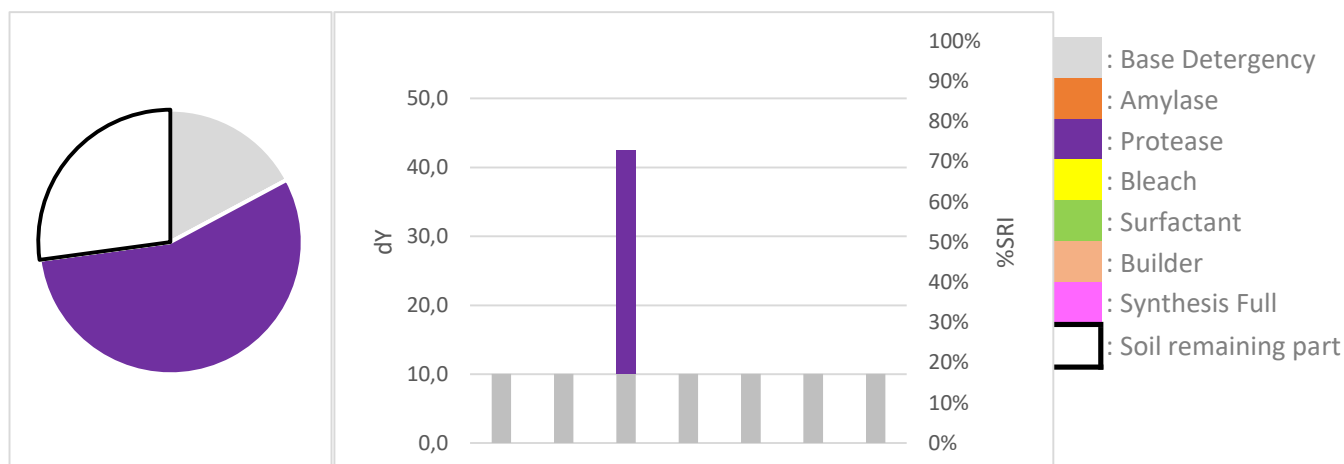
### Autodish detergent comparison



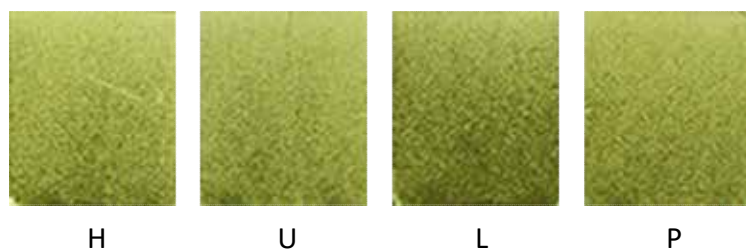
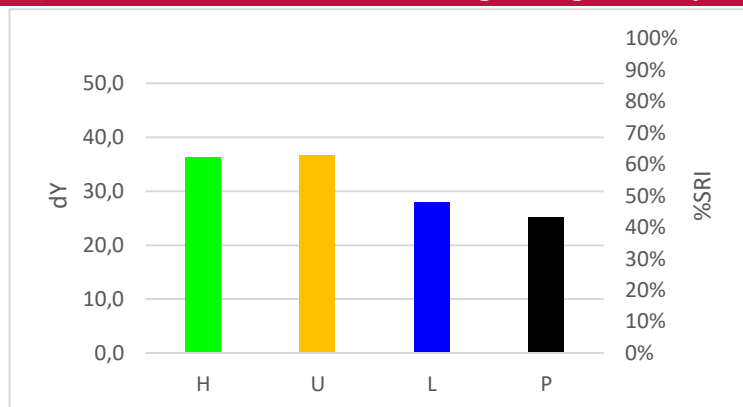
### Quality Control



### Autodish detergent component response



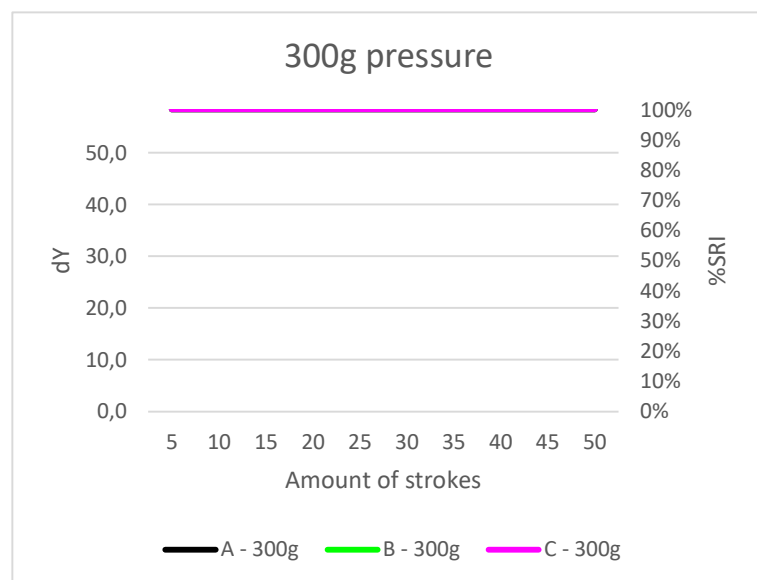
## Professional cleaning detergent comparison



# DM-60

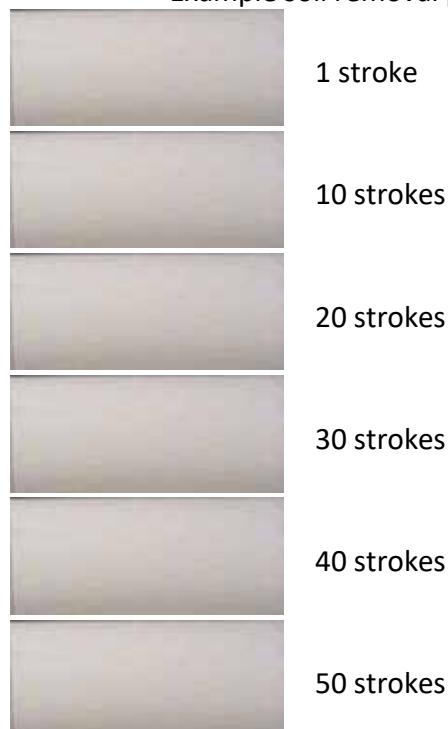
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★☆☆☆☆

## Hand dishwash detergent comparison



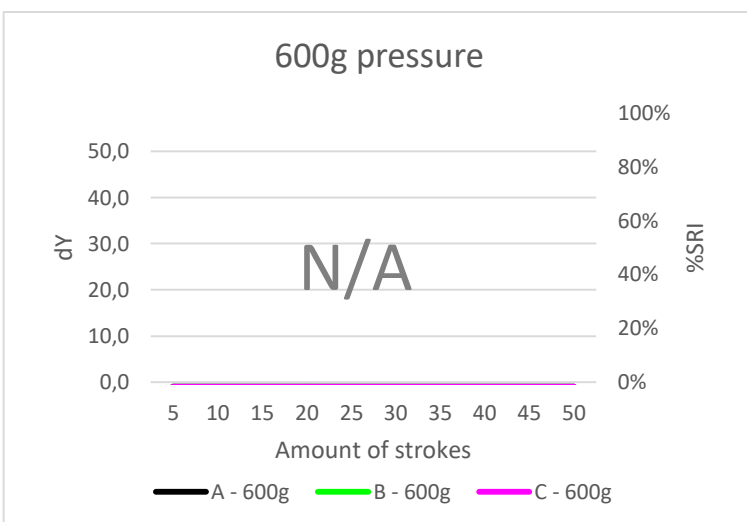
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★

### Example soil removal pictures



### Recommended TQC testing conditions

Amount of cycles: 5x  
 Amount of pressure: 300g  
 Speed cycles/min: 20  
 Length in mm: 200  
 Utensil: CFT sponge (soft)  
 Application method: ABS



# DM-62

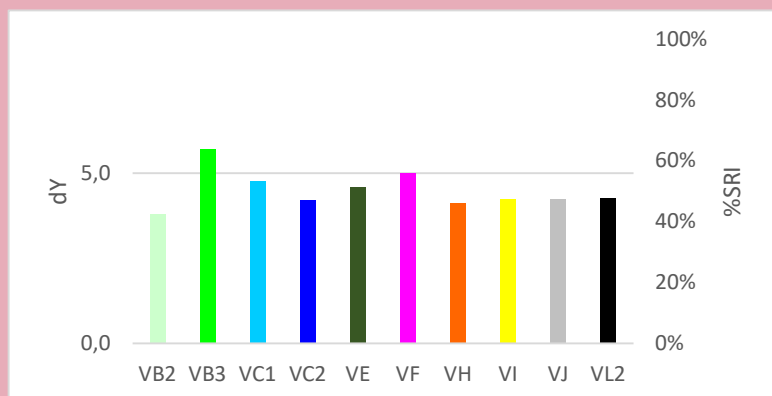
## Curry



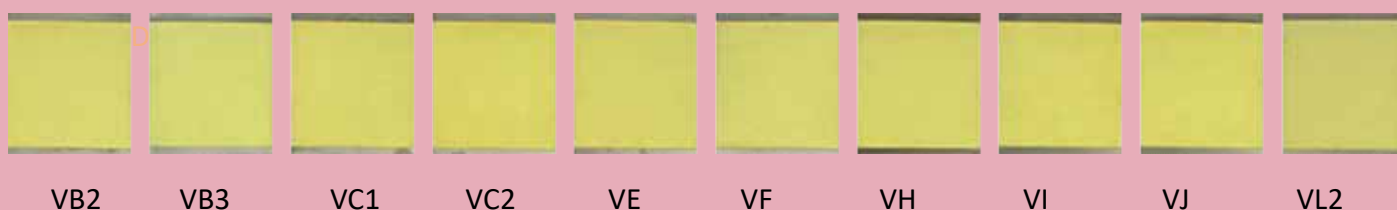
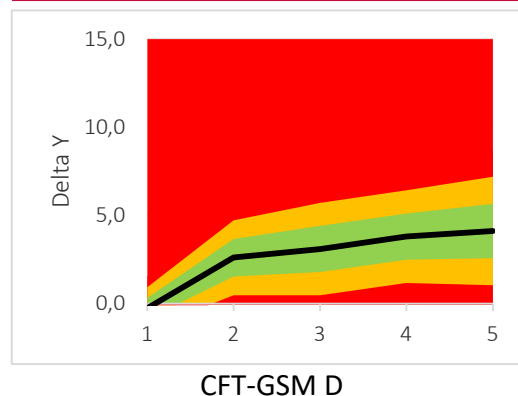
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-62	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0

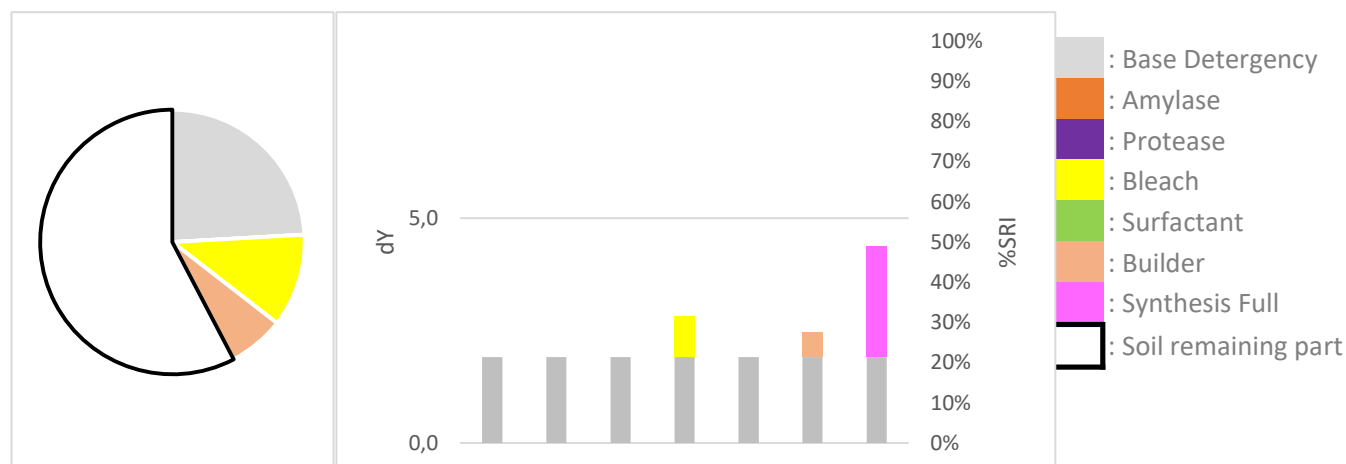
### Autodish detergent comparison



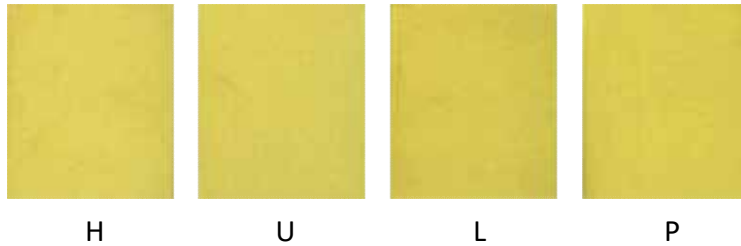
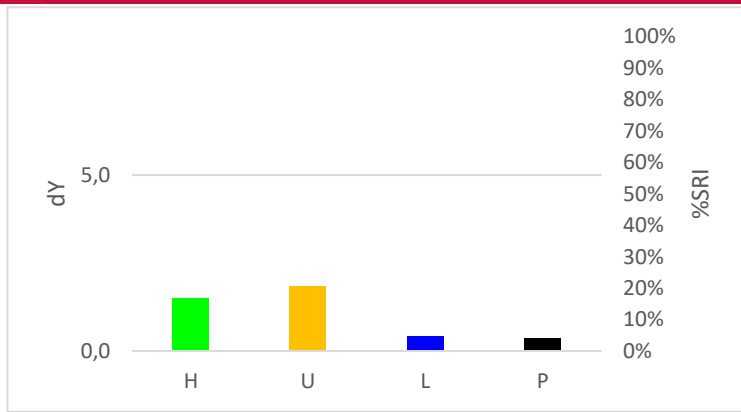
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



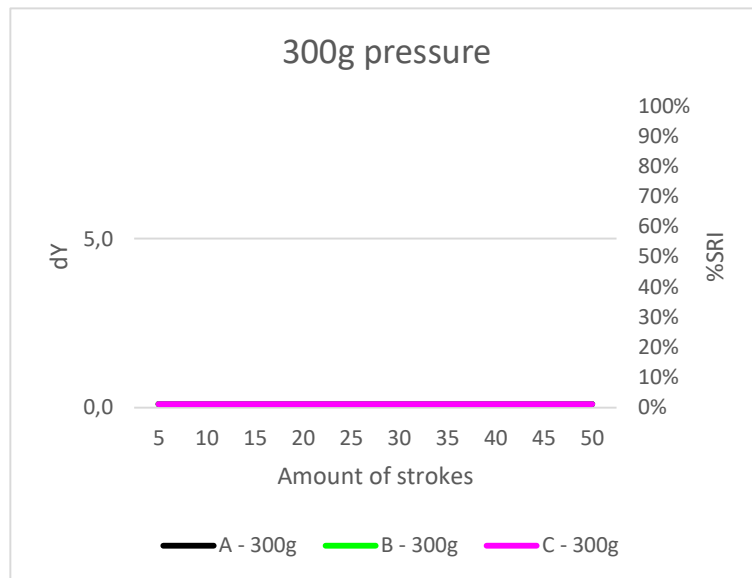
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



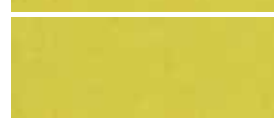
Example soil removal pictures



1 stroke



10 strokes



20 strokes



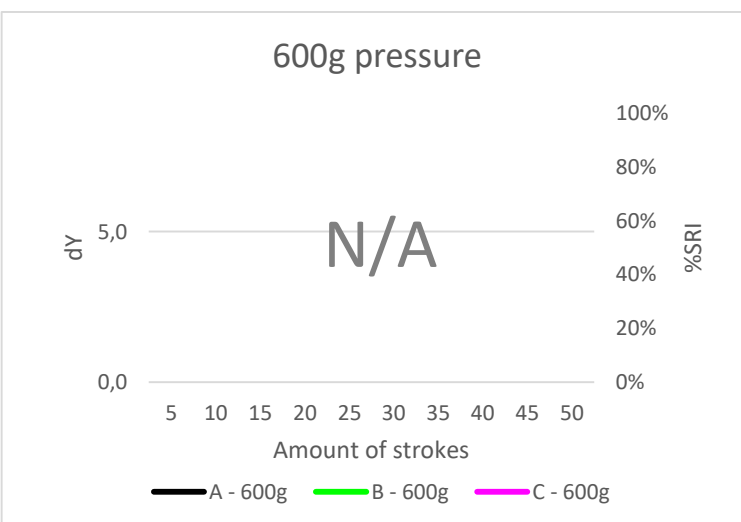
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 5x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-63

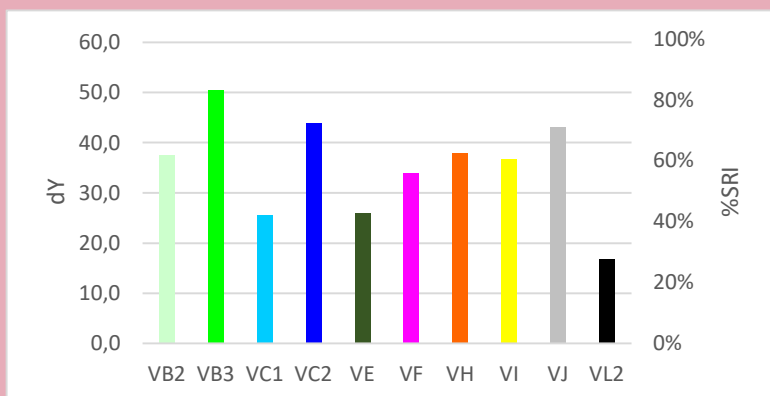
## Chicken Biryani



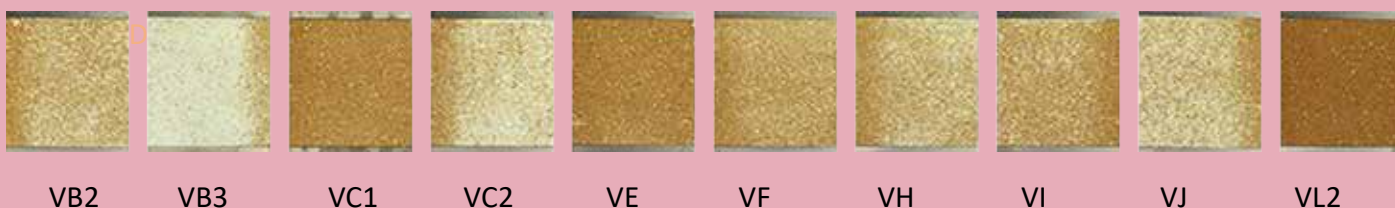
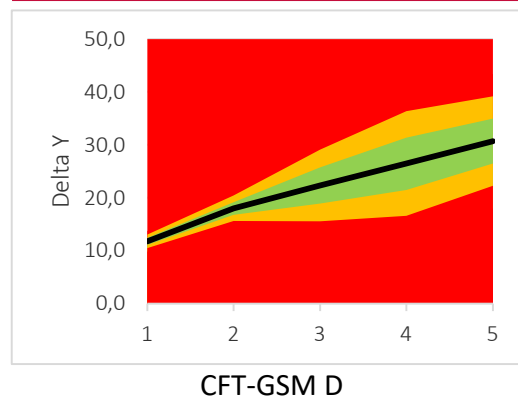
Discriminative Power: ★★★★★  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-63	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-63	Technical Porcelain (DT H)	120 x 100 x 1	87,2

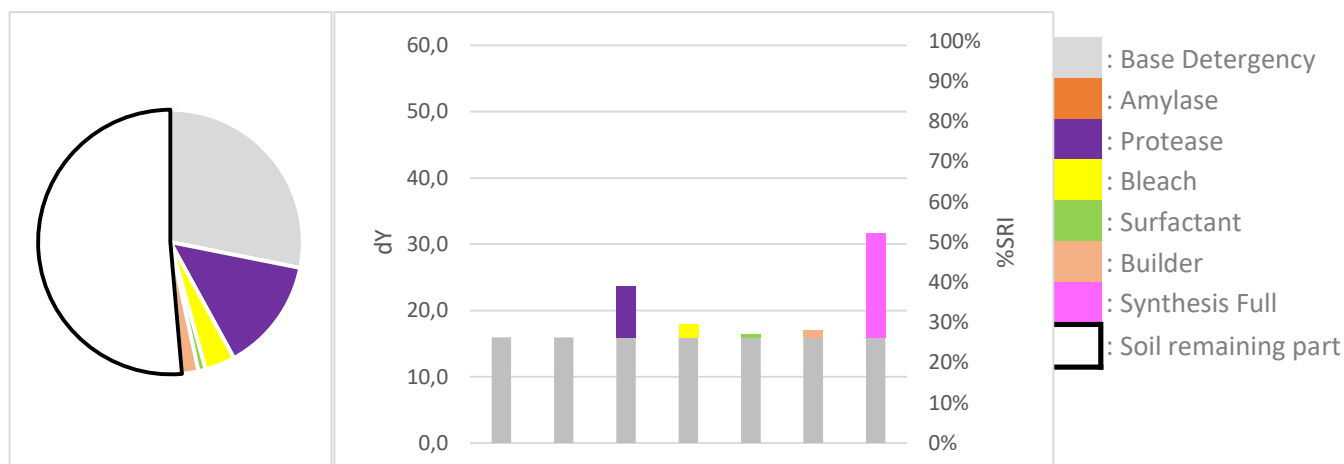
### Autodish detergent comparison



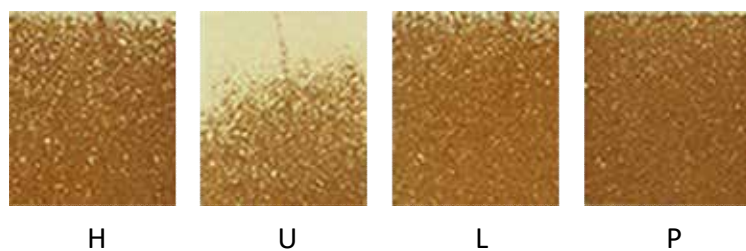
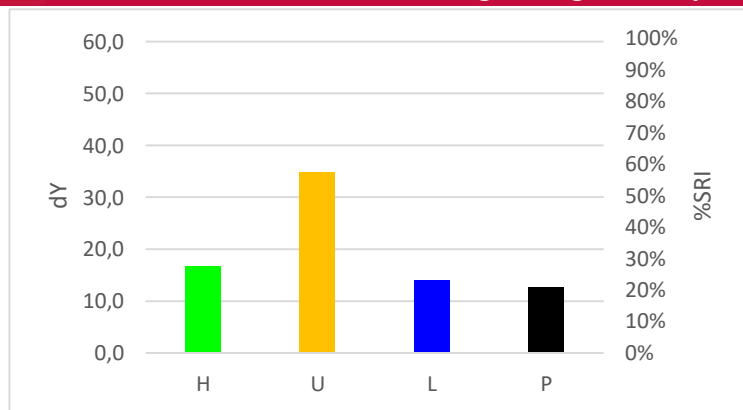
### Quality Control



### Autodish detergent component response



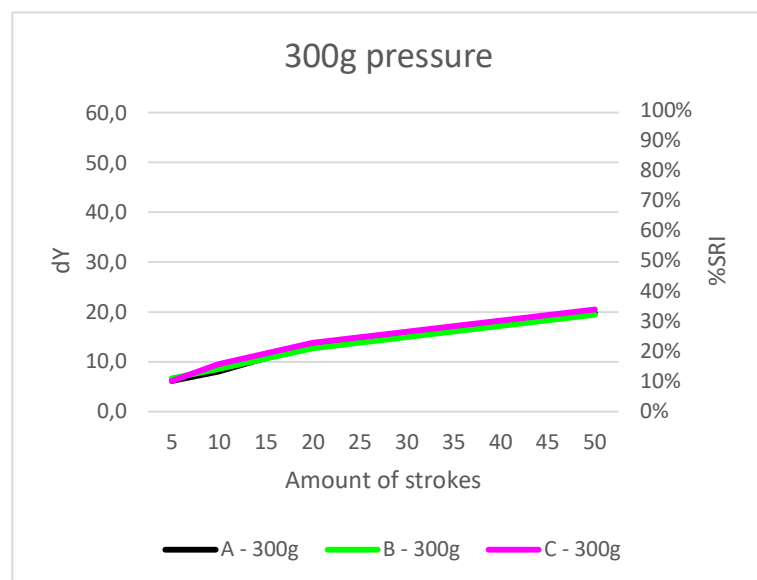
## Professional cleaning detergent comparison



**Discriminative Power:** ★★★★★  
**Reproducibility Ratio:** ★★★★★  
**Reliability Ratio:** ★★★★★

# DM-63

## Hand dishwash detergent comparison



**Discriminative Power:** ★☆☆☆☆  
**Reproducibility Ratio:** ★★★★★  
**Reliability Ratio:** ★★★★★

Example soil removal pictures



1 stroke



10 strokes



20 strokes



30 strokes



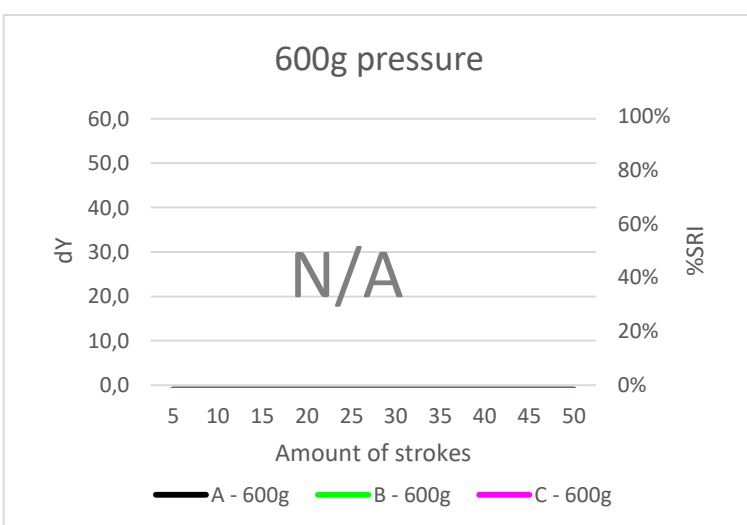
40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 10x  
 Amount of pressure: 300g  
 Speed cycles/min: 20  
 Length in mm: 200  
 Utensil: CFT sponge (soft)  
 Application method: ABS



# DM-71

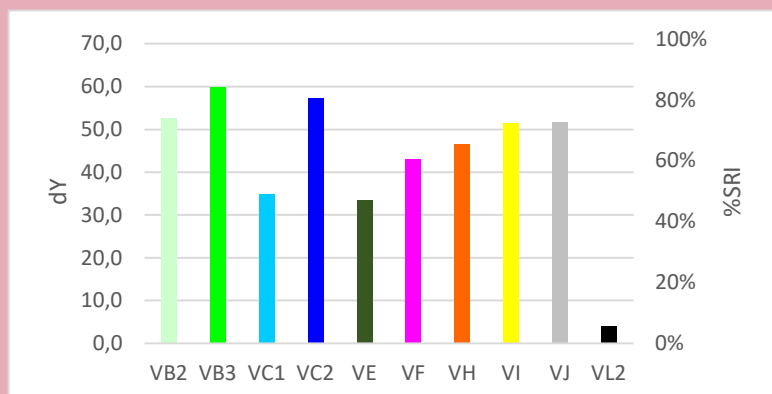
Mixed (corn/rice) starch,  
coloured with food  
colourant



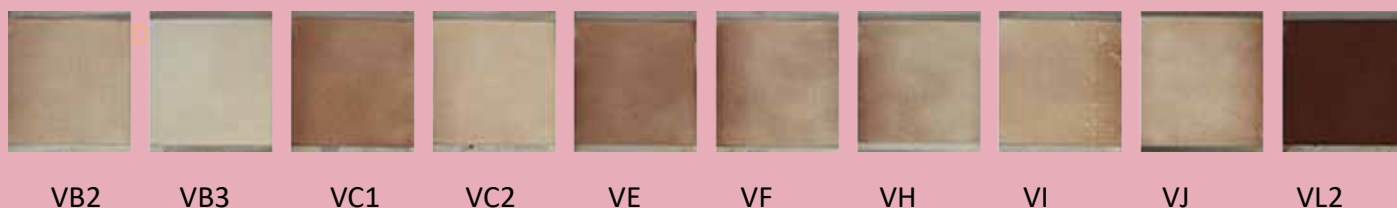
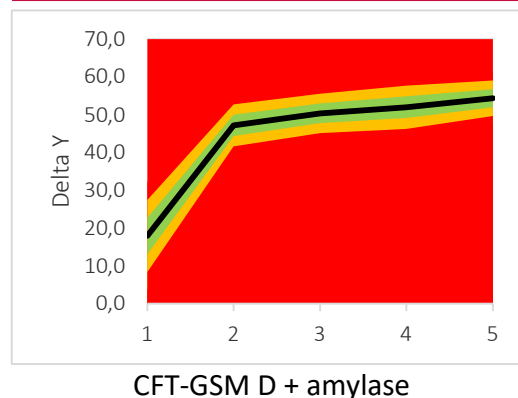
Discriminative Power: ★★★★★  
Reproducibility Ratio: ★★★★★  
Reliability Ratio: ★★★★★  
Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-71	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-71	Technical Porcelain (DT H)	120 x 100 x 1	87,2

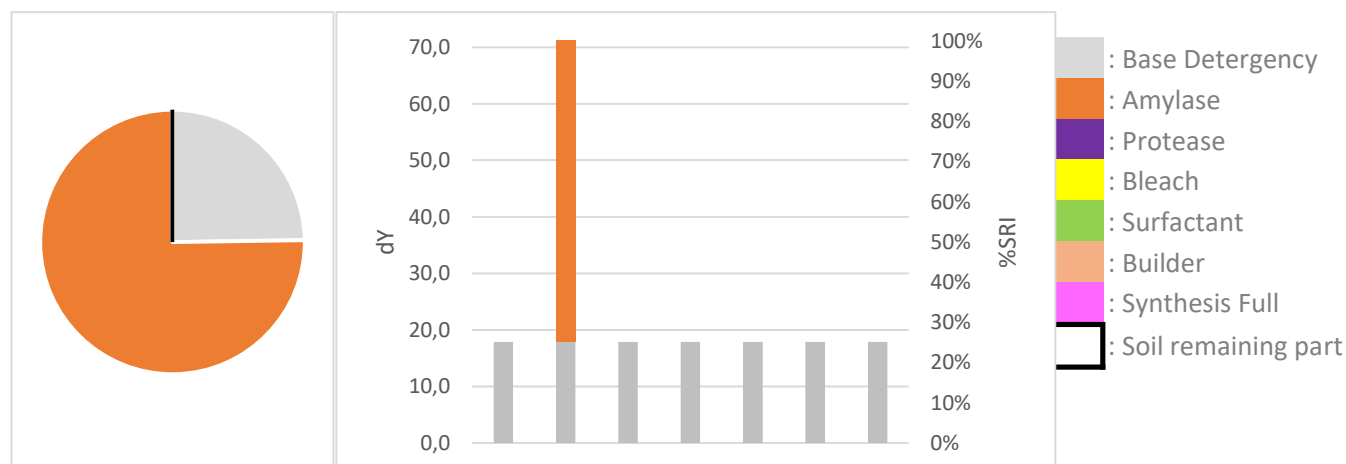
## Autodish detergent comparison



## Quality Control

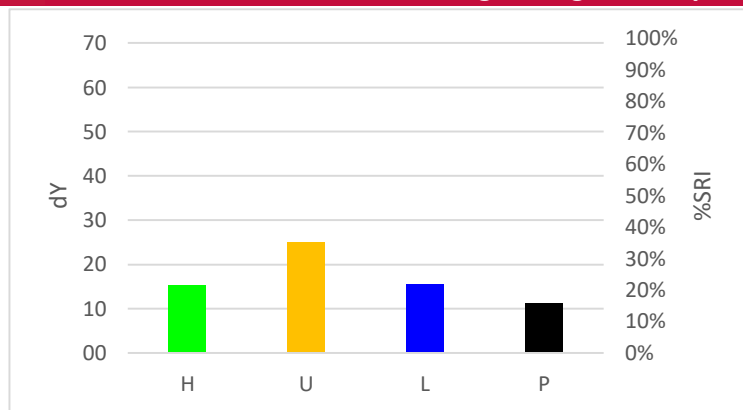


## Autodish detergent component response





## Professional cleaning detergent comparison



H

U

L

P

# DM-71

**Discriminative Power:**



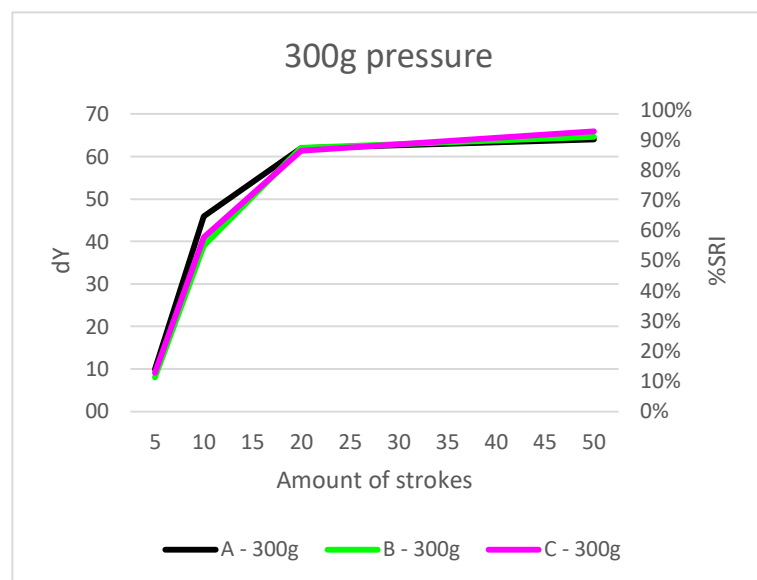
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



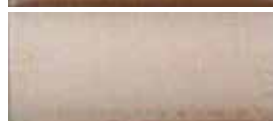
Example soil removal pictures



1 stroke



10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles:

10x

Amount of pressure:

300g

Speed cycles/min:

20

Length in mm:

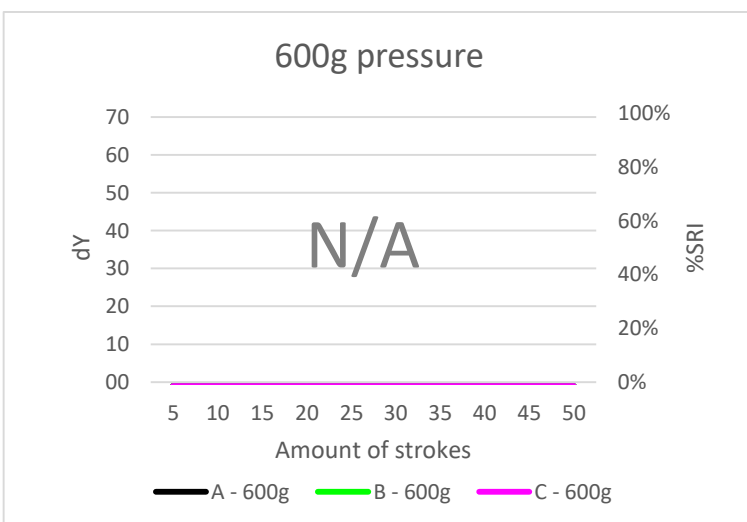
200

Utensil:

CFT sponge (soft)

Application method:

ABS



# DM-73

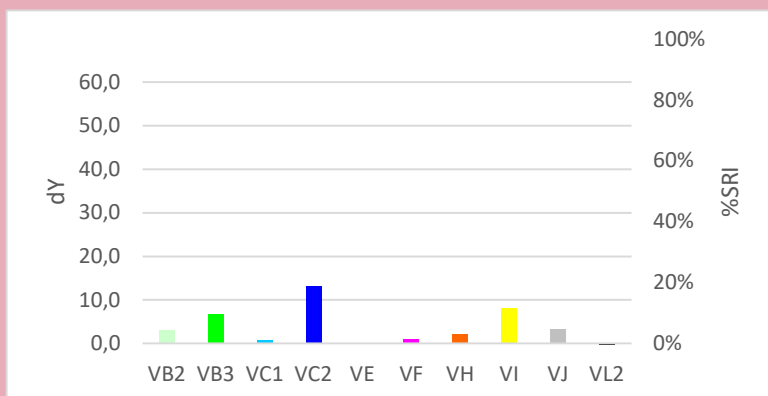
## Barilla pasta, coloured with food colourant



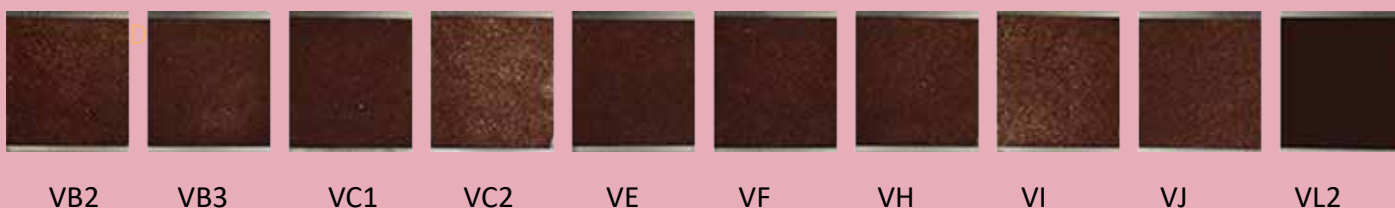
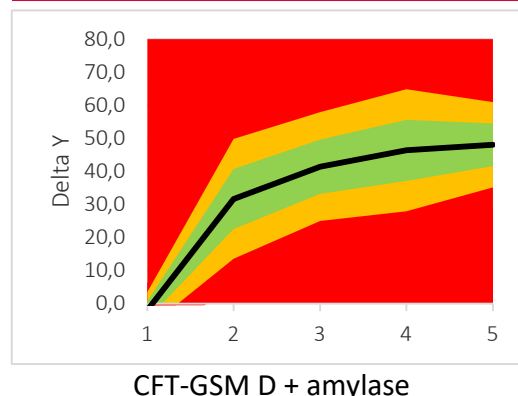
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-73	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-73	Technical Porcelain (DT H)	120 x 100 x 1	87,2

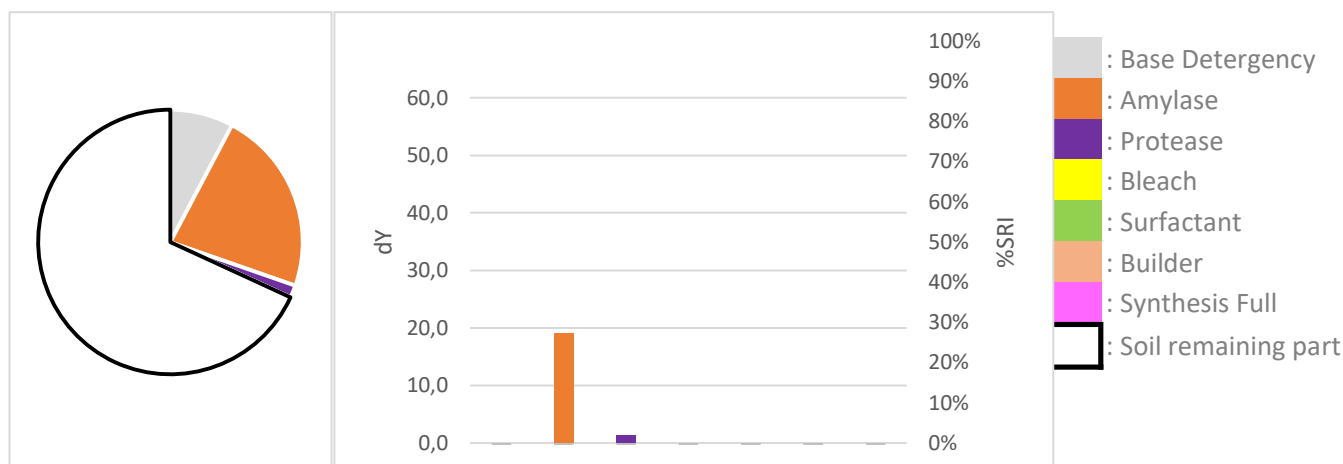
### Autodish detergent comparison



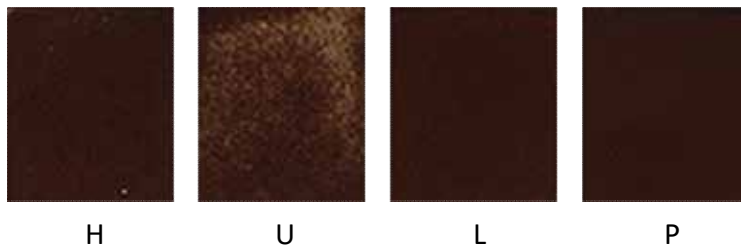
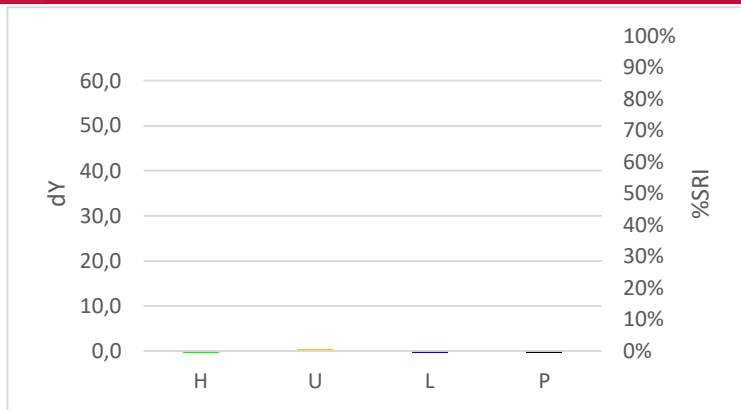
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



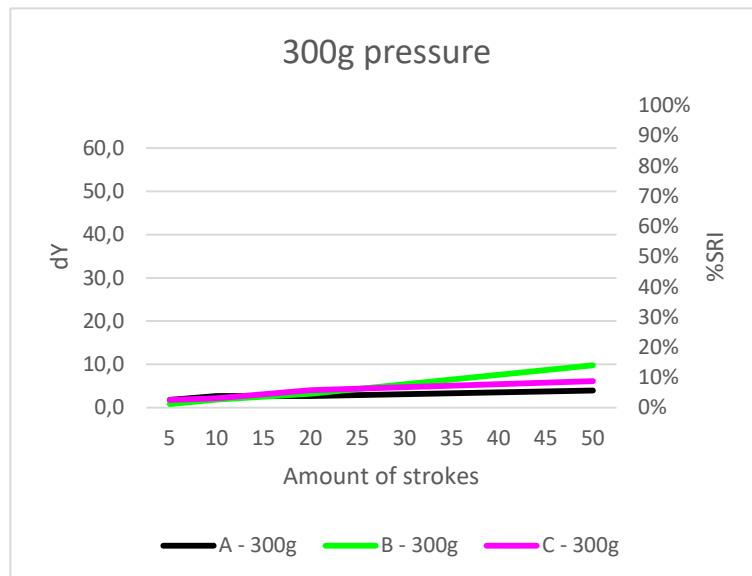
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



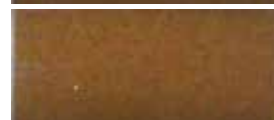
**Reliability Ratio:**



Example soil removal pictures



1 stroke



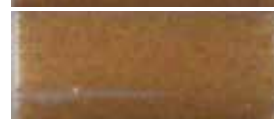
10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-75

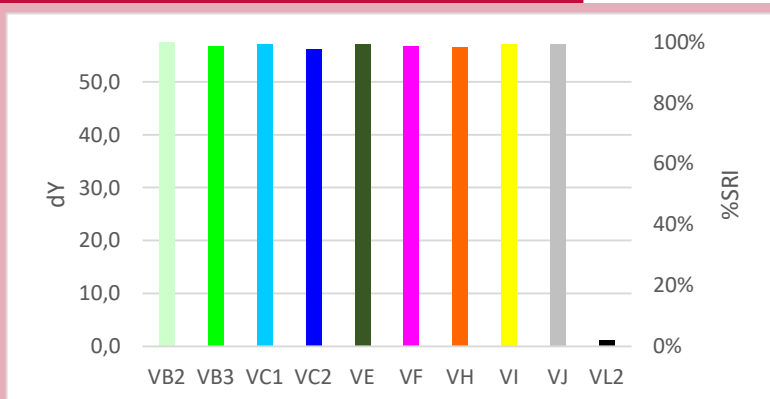
## Chocolate pudding



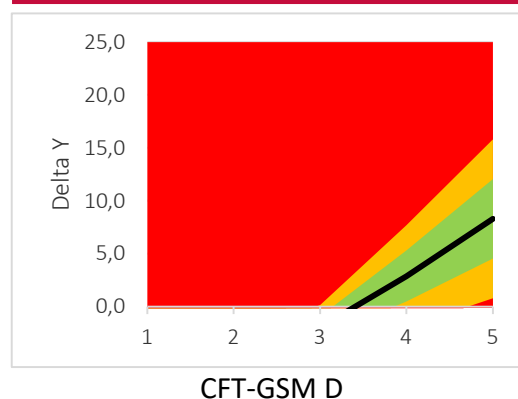
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-75	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-75	Technical Porcelain (DT H)	120 x 100 x 1	87,2

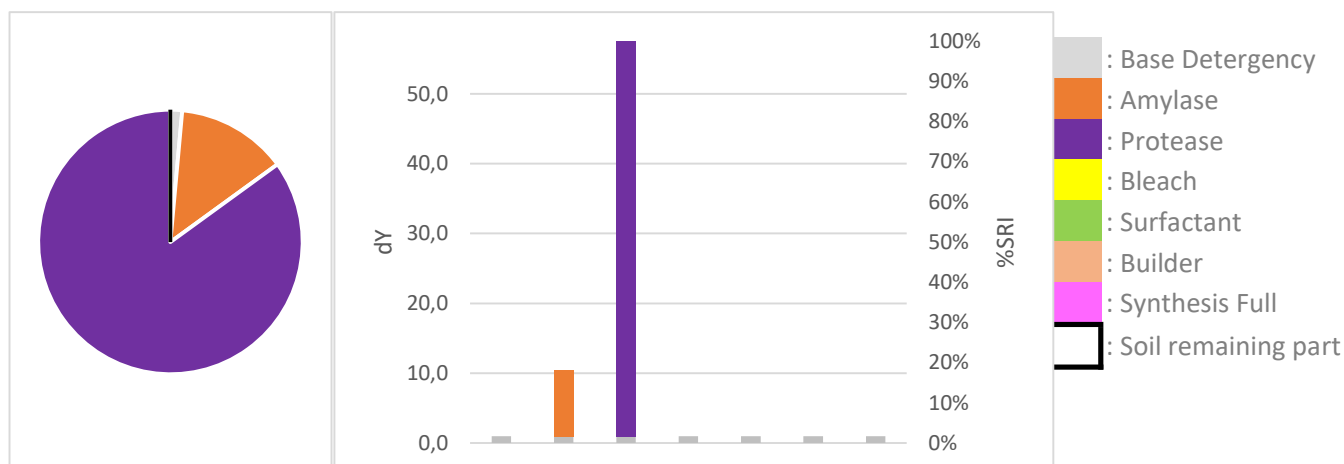
### Autodish detergent comparison



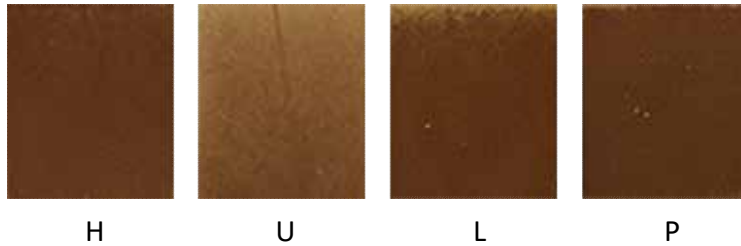
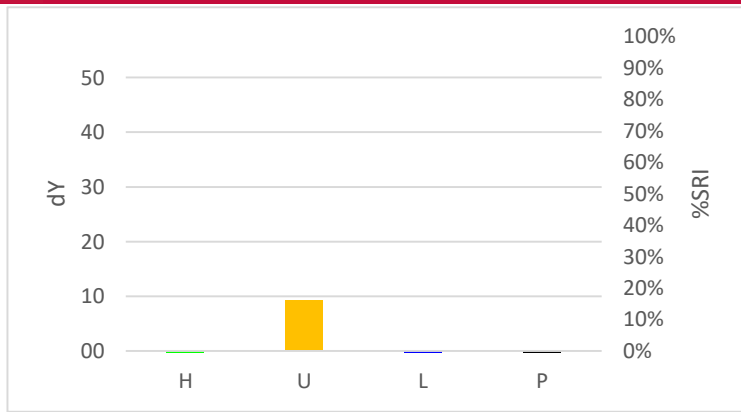
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-75

**Discriminative Power:**



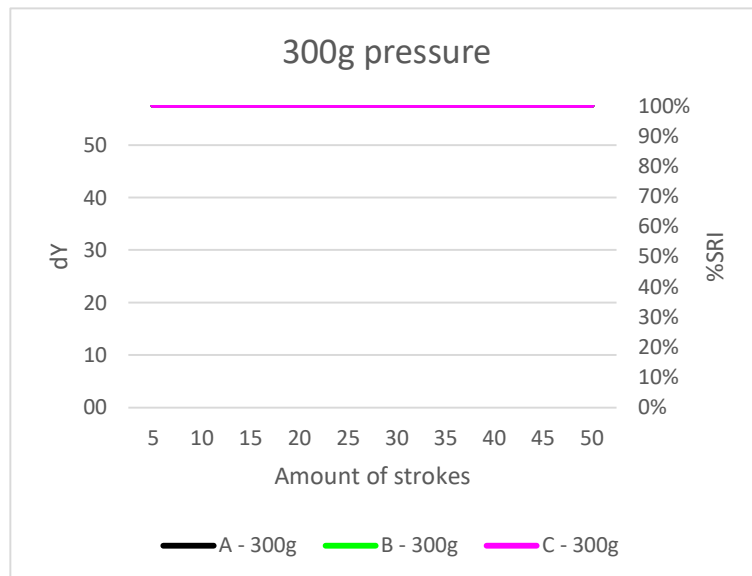
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



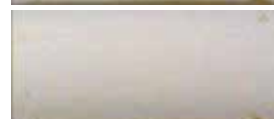
Example soil removal pictures



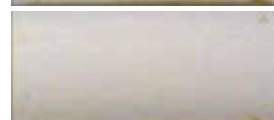
1 stroke



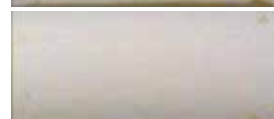
10 strokes



20 strokes



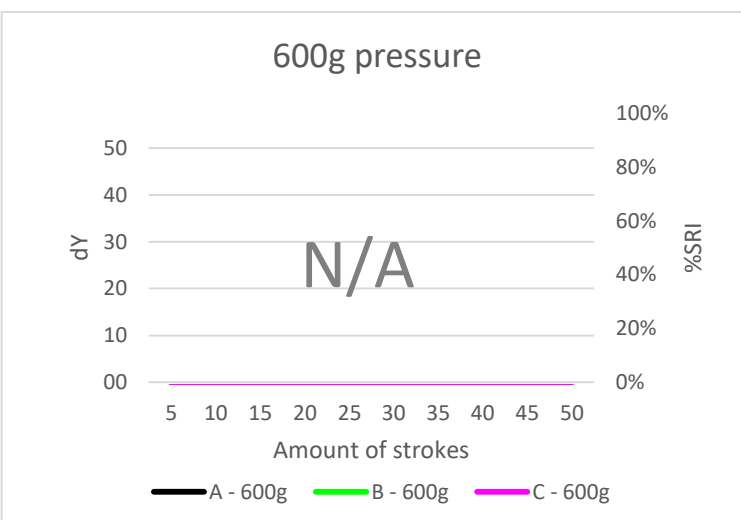
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 5x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-76

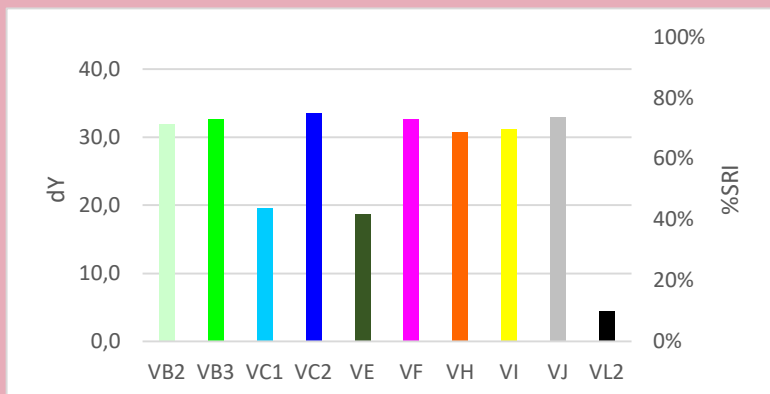
## Corn starch, coloured



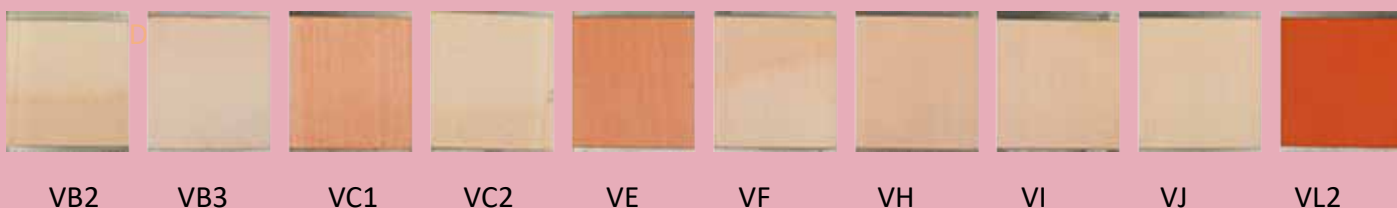
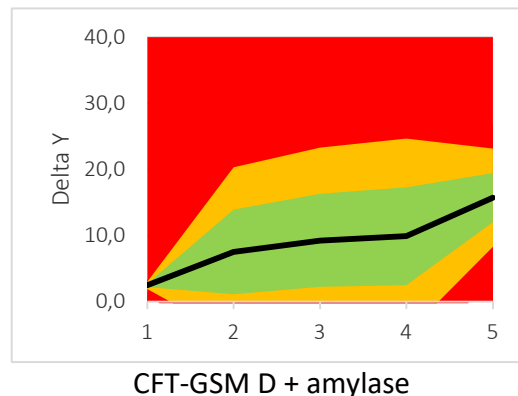
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-76	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-76	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-76	Steel plate, grated (DS I)	120 x 100 x 1	47,4
DG-76	Glass plate, grated (DG I)	120 x 100 x 2	59,4

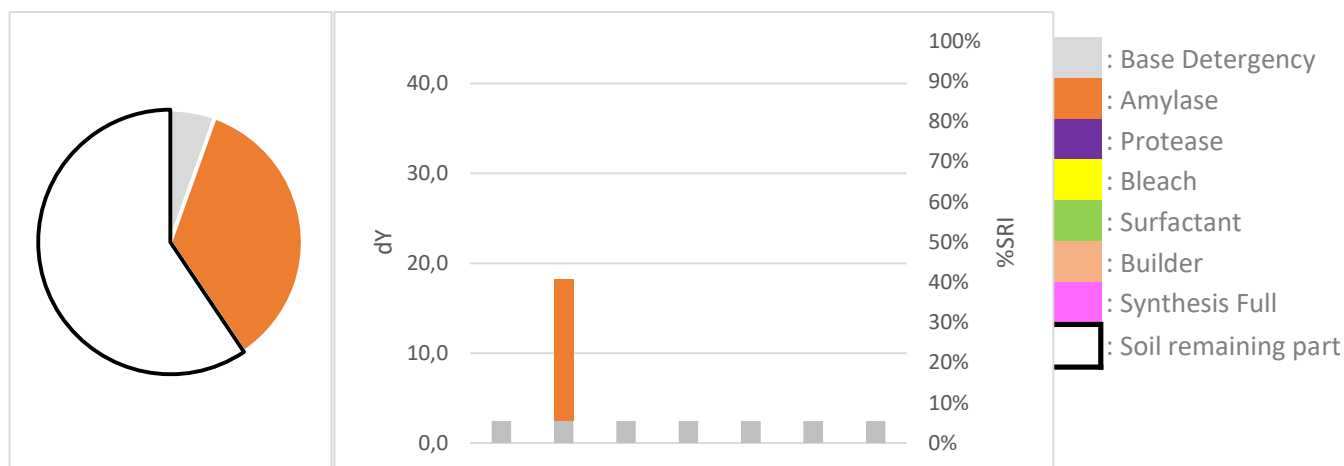
### Autodish detergent comparison



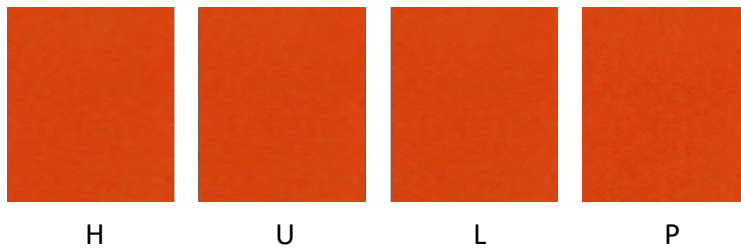
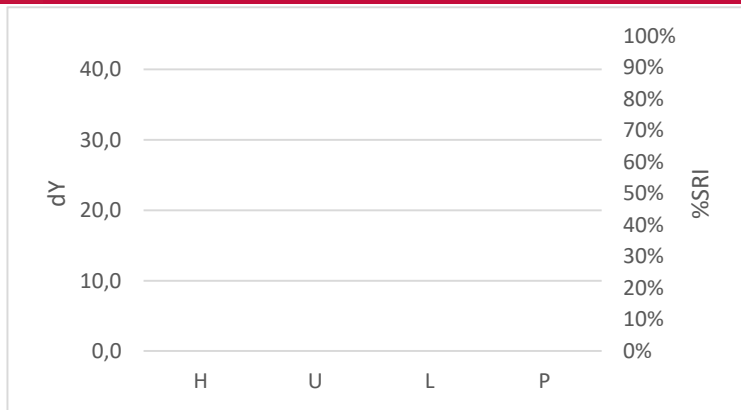
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**

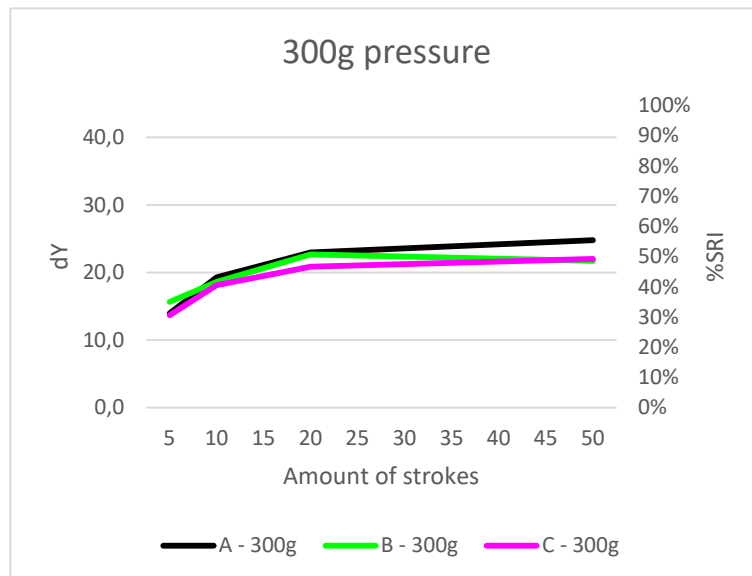


**Reliability Ratio:**



# DM-76

## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



### Example soil removal pictures



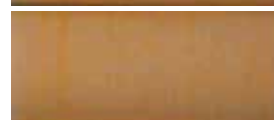
1 stroke



10 strokes



20 strokes



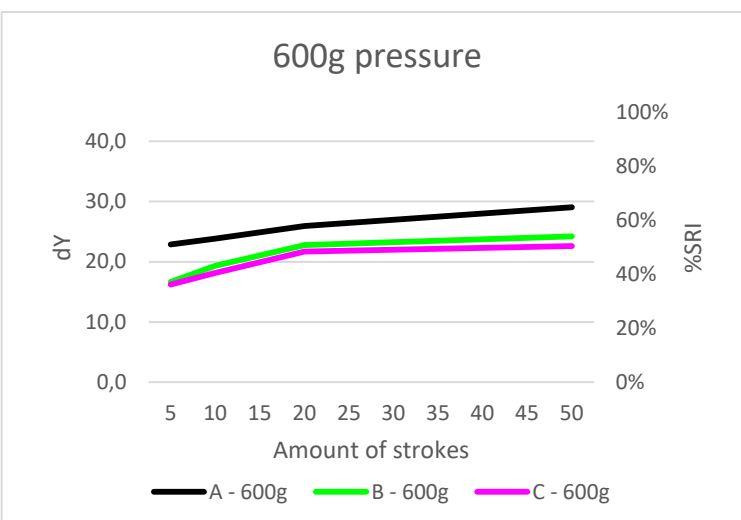
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-176

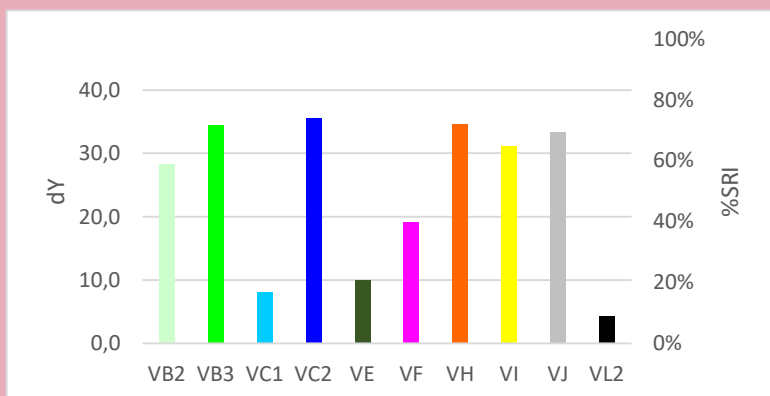
## Corn starch, coloured, extra severe



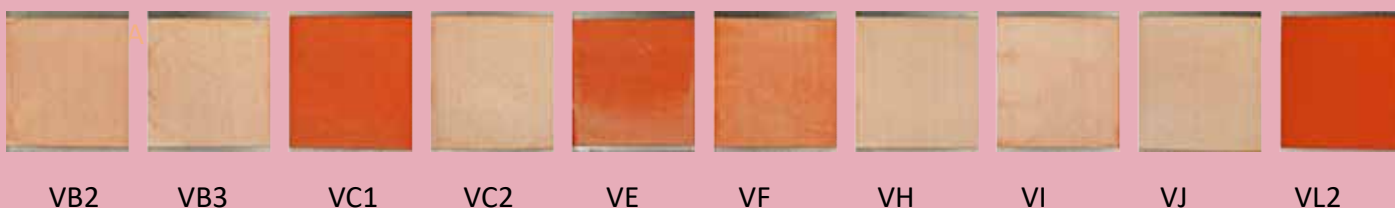
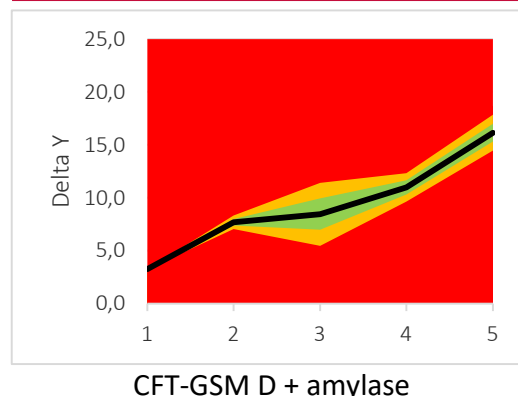
Discriminative Power: ★★★★★  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-176	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-176	Technical Porcelain (DT H)	120 x 100 x 1	87,2

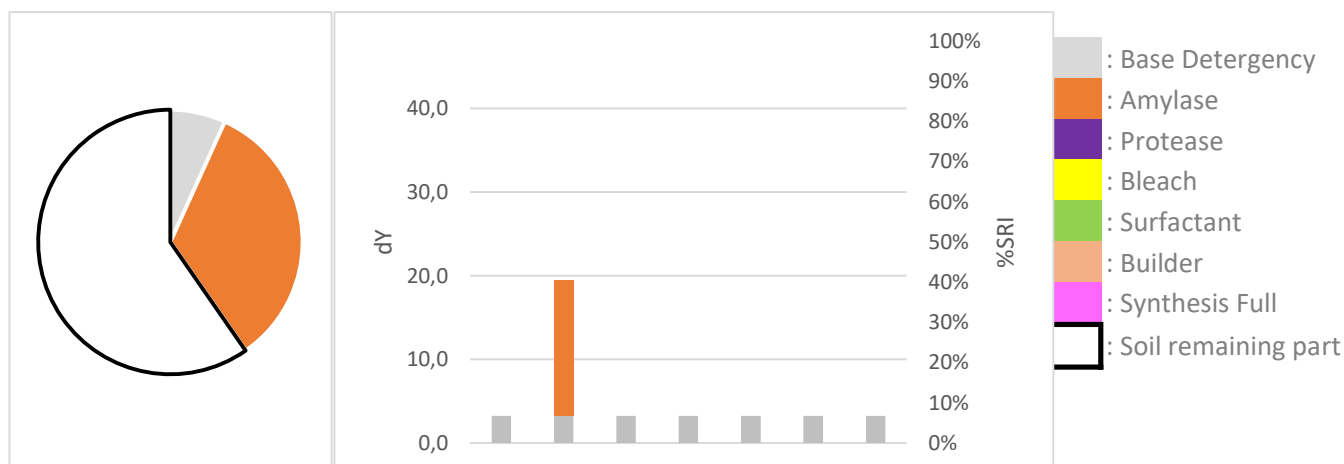
### Autodish detergent comparison



### Quality Control

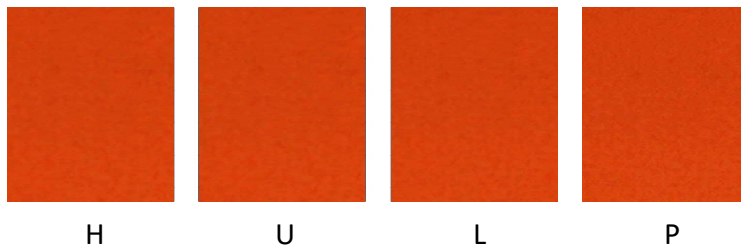
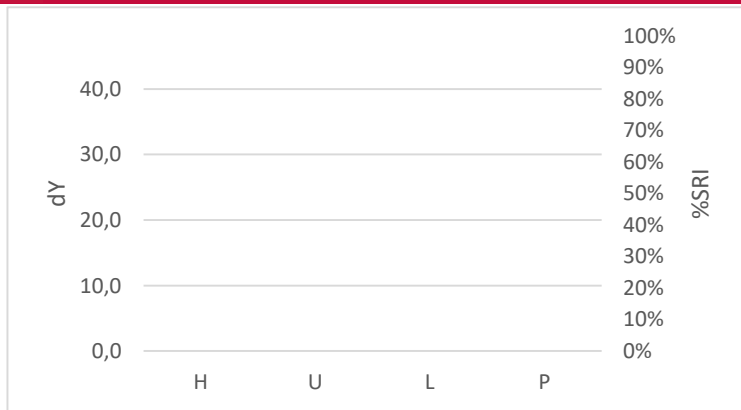


### Autodish detergent component response





## Professional cleaning detergent comparison



# DM-176

**Discriminative Power:**



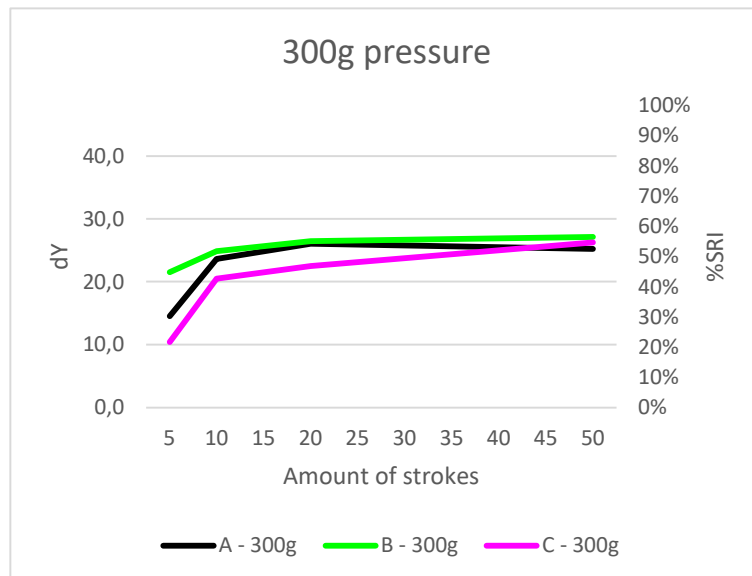
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



### Example soil removal pictures



1 stroke



10 strokes



20 strokes



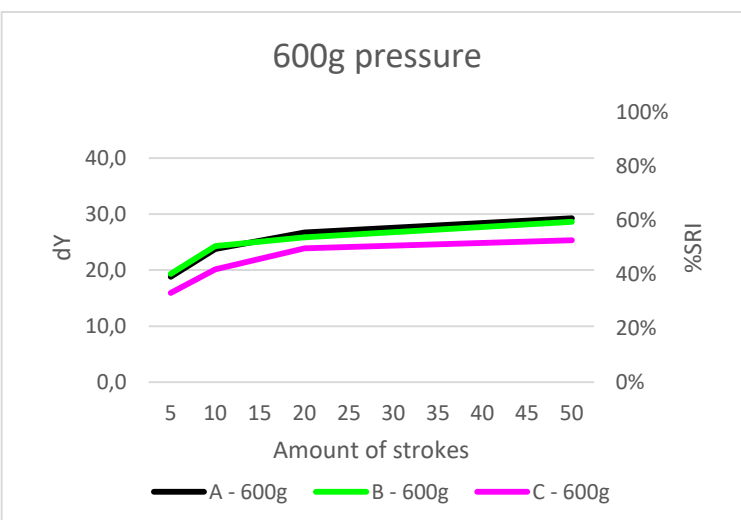
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 5x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-276

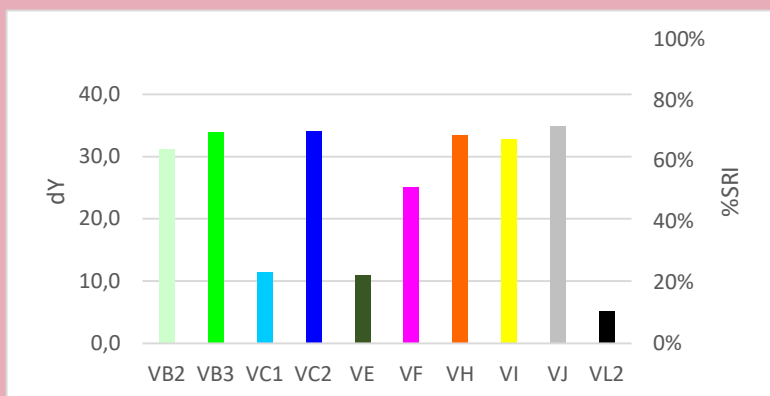
## Corn starch, coloured, double soil load



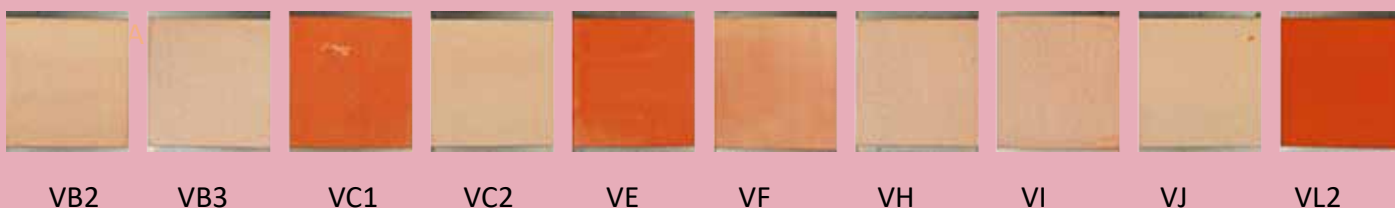
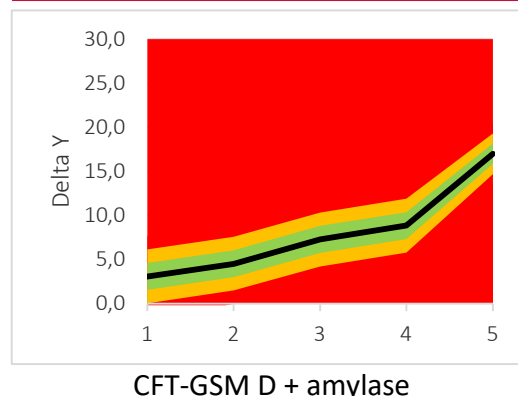
Discriminative Power: ★★★★★  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-276	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-276	Technical Porcelain (DT H)	120 x 100 x 1	87,2

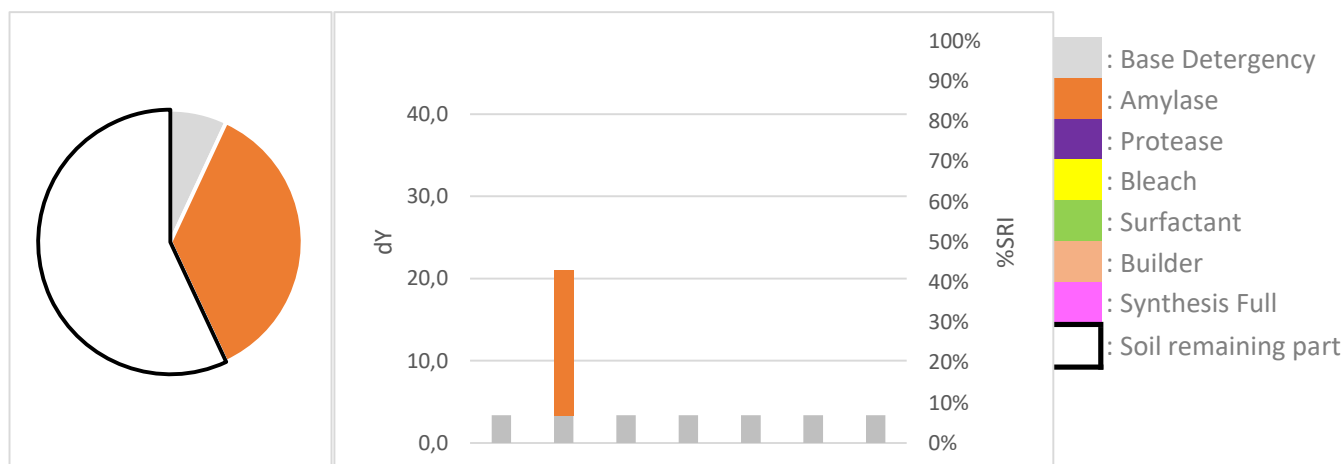
### Autodish detergent comparison



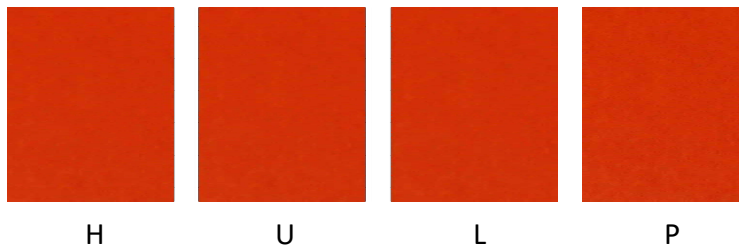
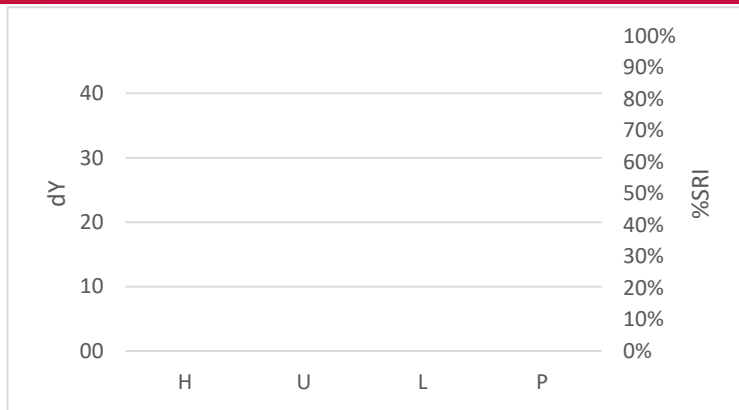
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-276

**Discriminative Power:**



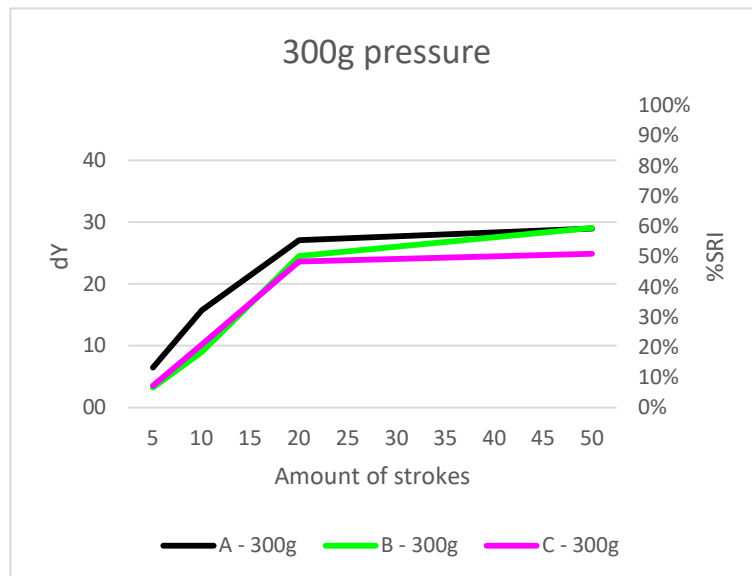
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



### Example soil removal pictures



1 stroke



10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 10x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-376

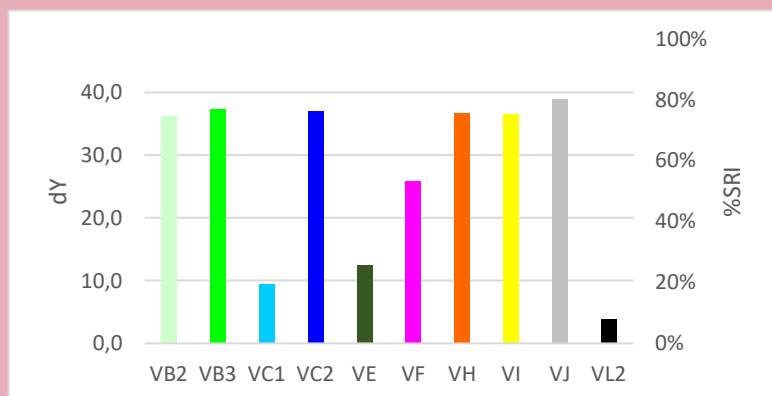
## Corn starch, coloured, triple soil load



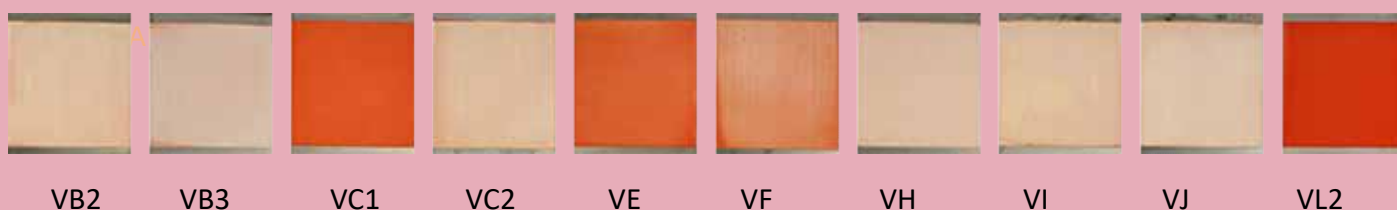
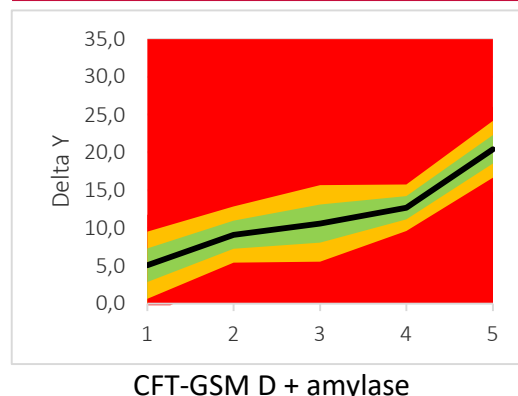
Discriminative Power: ★★★★★  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-376	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-376	Technical Porcelain (DT H)	120 x 100 x 1	87,2

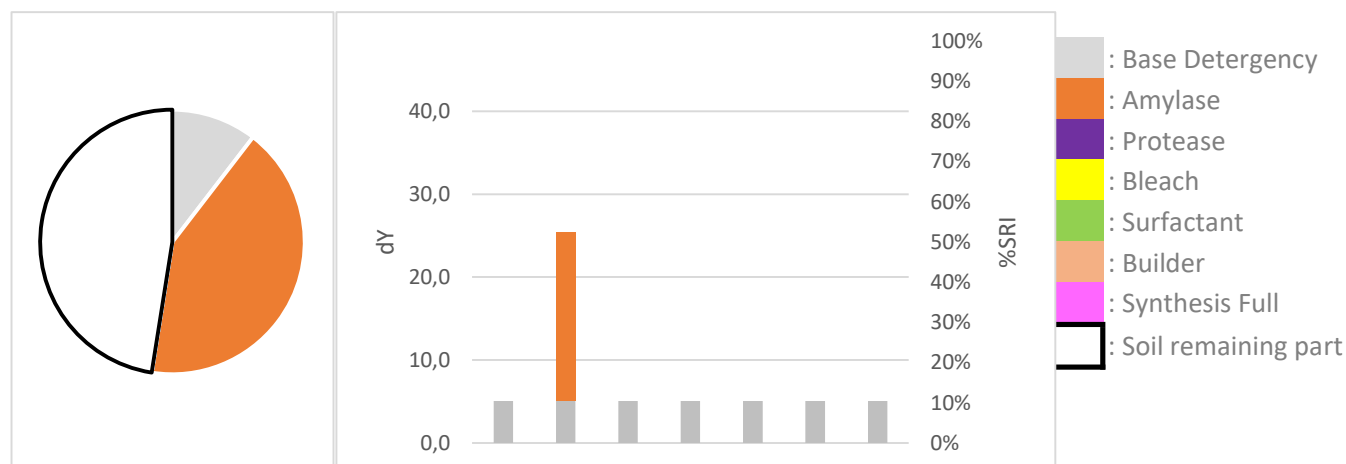
### Autodish detergent comparison



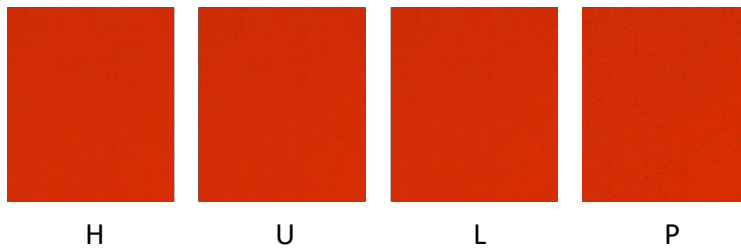
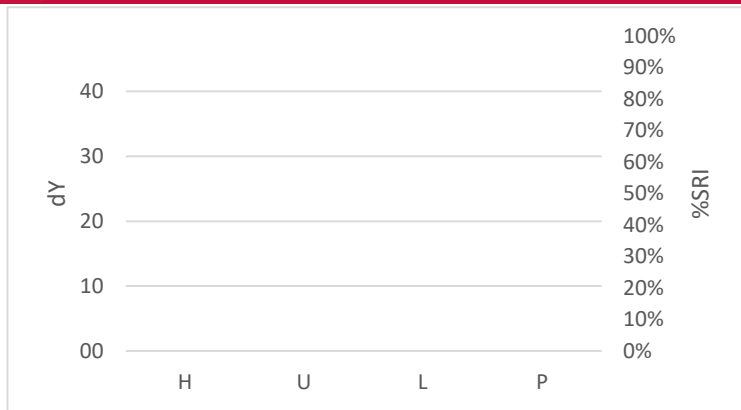
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-376

**Discriminative Power:**



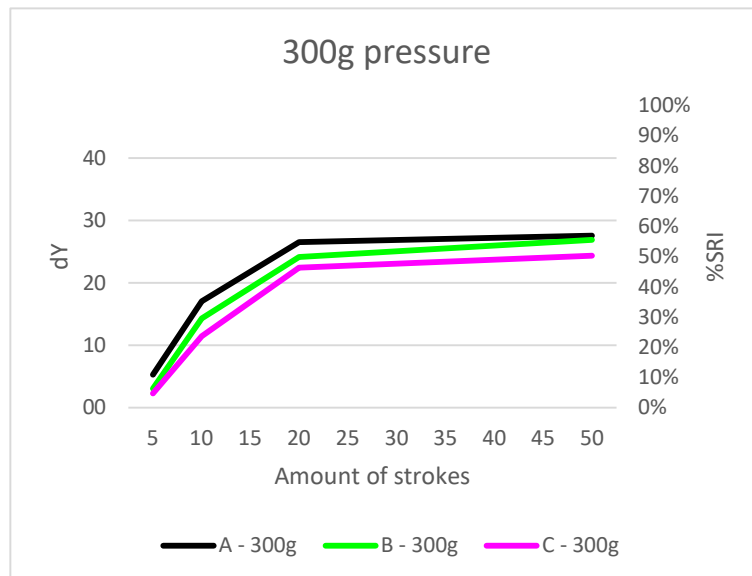
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke



10 strokes



20 strokes



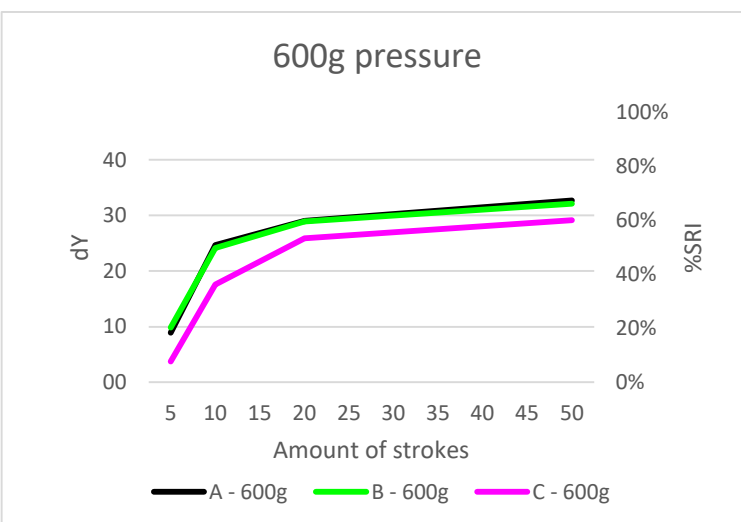
30 strokes



40 strokes



50 strokes



**Recommended TQC testing conditions**

Amount of cycles:

10x

Amount of pressure:

600g

Speed cycles/min:

20

Length in mm:

200

Utensil:

CFT sponge (soft)

Application method:

SOAK

# DM-476

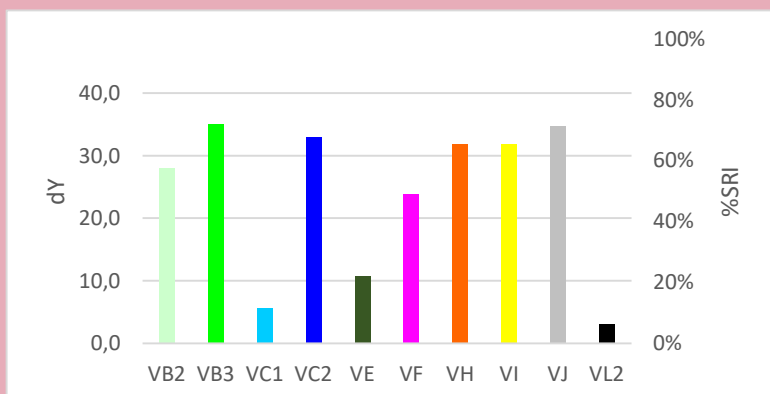
Corn starch, coloured,  
heavy load extra  
stubborn



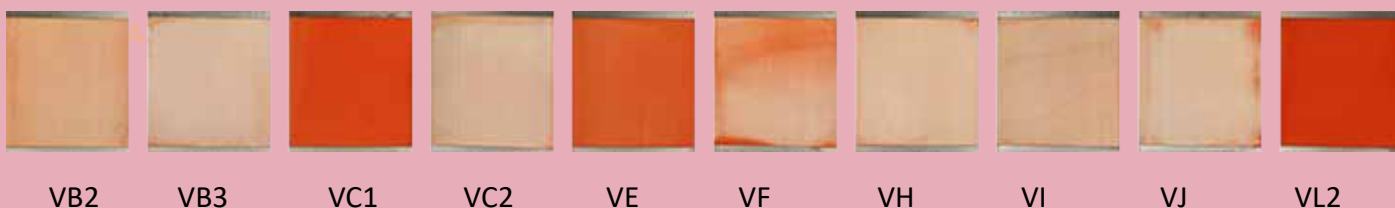
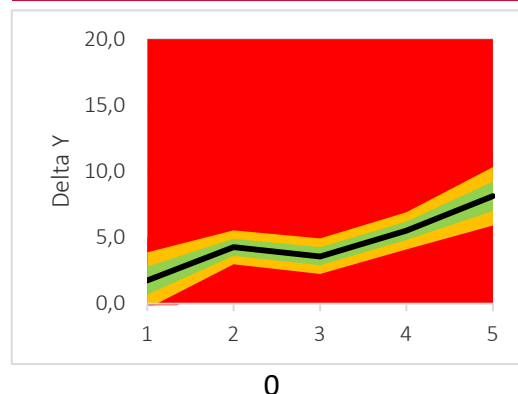
Discriminative Power: ★★★★★  
Reproducibility Ratio: ★★★★★  
Reliability Ratio: ★★★★★  
Popularity: ★☆☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-476	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0

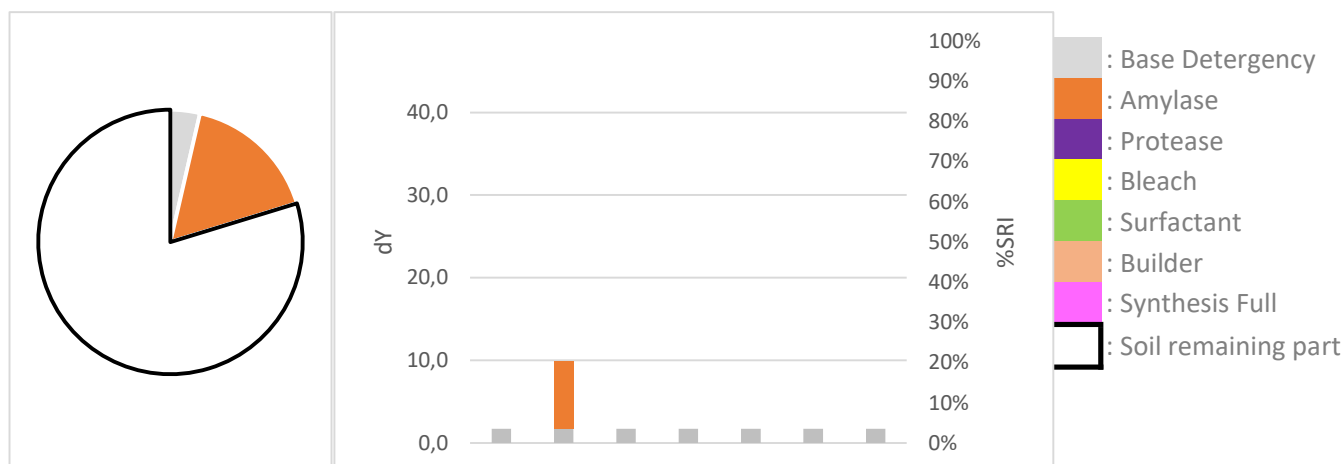
## Autodish detergent comparison



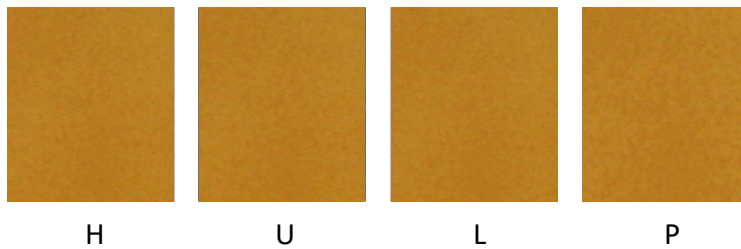
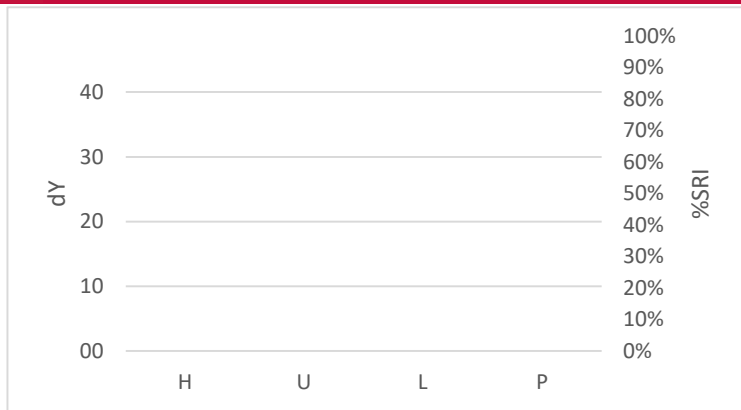
## Quality Control



## Autodish detergent component response



## Professional cleaning detergent comparison



# DM-476

**Discriminative Power:**



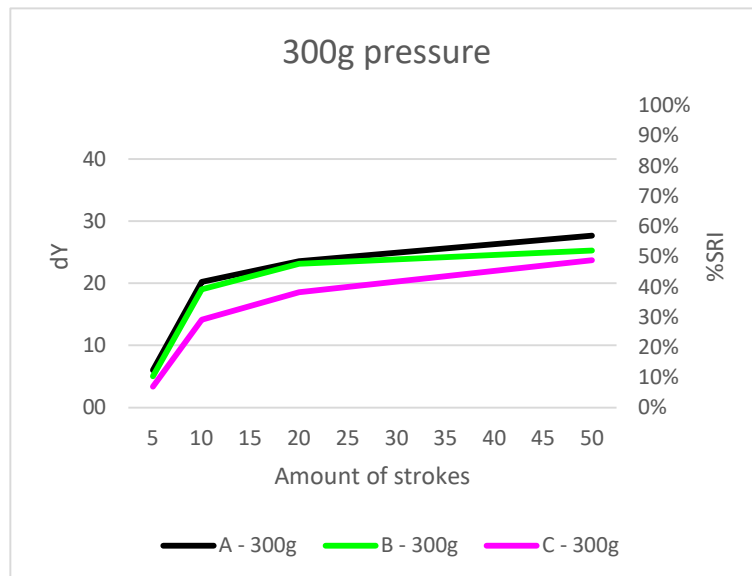
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



### Example soil removal pictures



1 stroke



10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-77

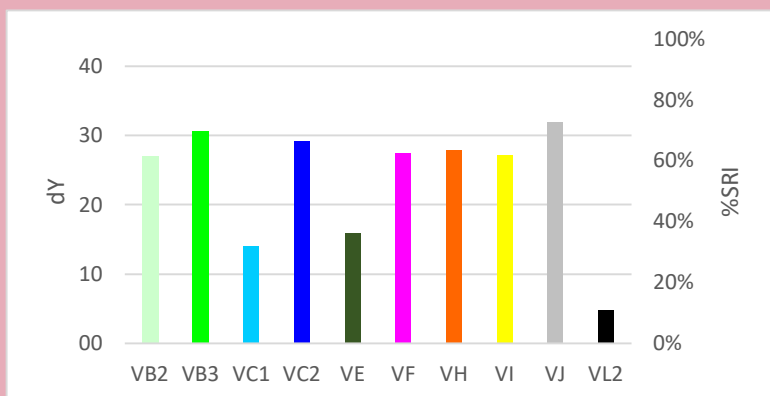
## Mixed (corn/rice) starch, coloured



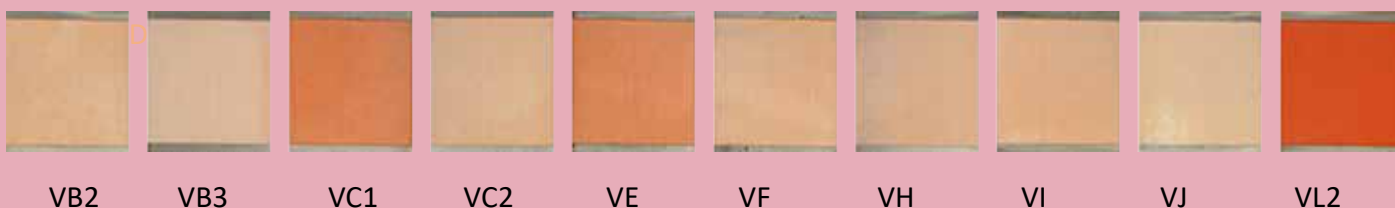
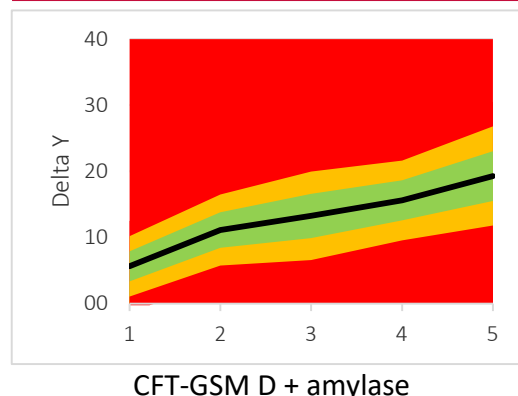
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-77	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-77	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-77	Steel plate, grated (DS I)	120 x 100 x 1	47,4
DG-77	Glass plate, grated (DG I)	120 x 100 x 2	59,4

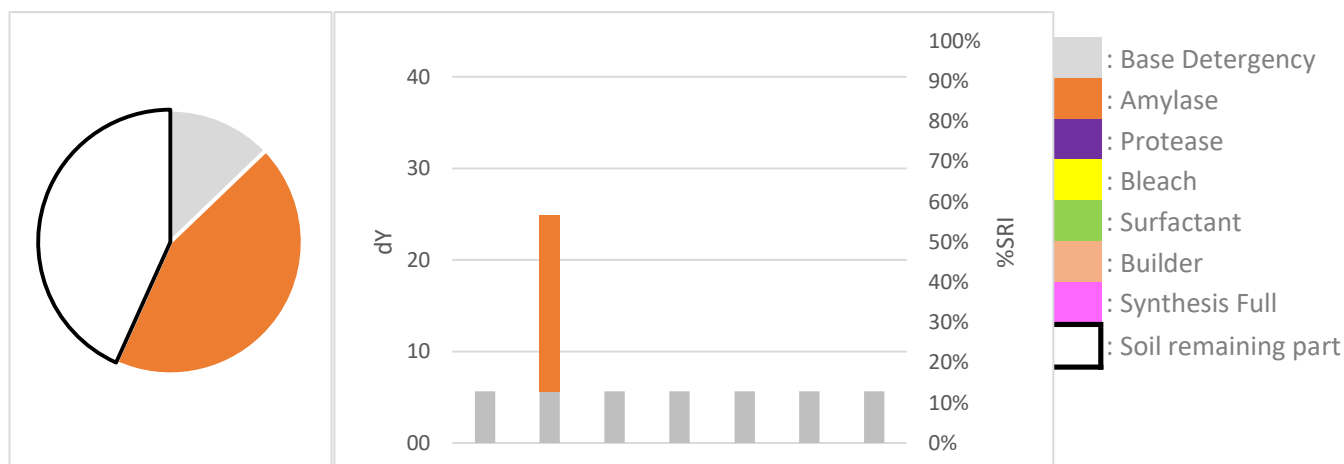
### Autodish detergent comparison



### Quality Control

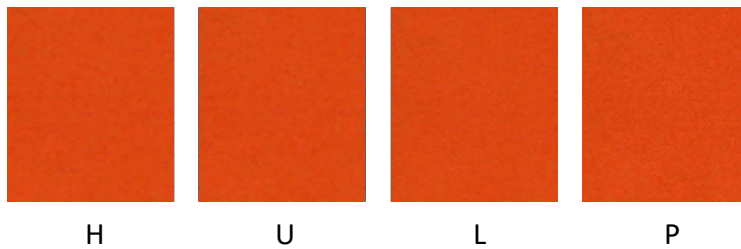
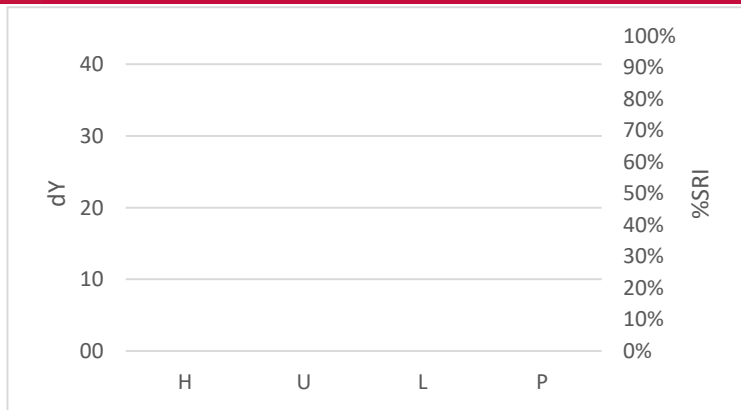


### Autodish detergent component response





## Professional cleaning detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**

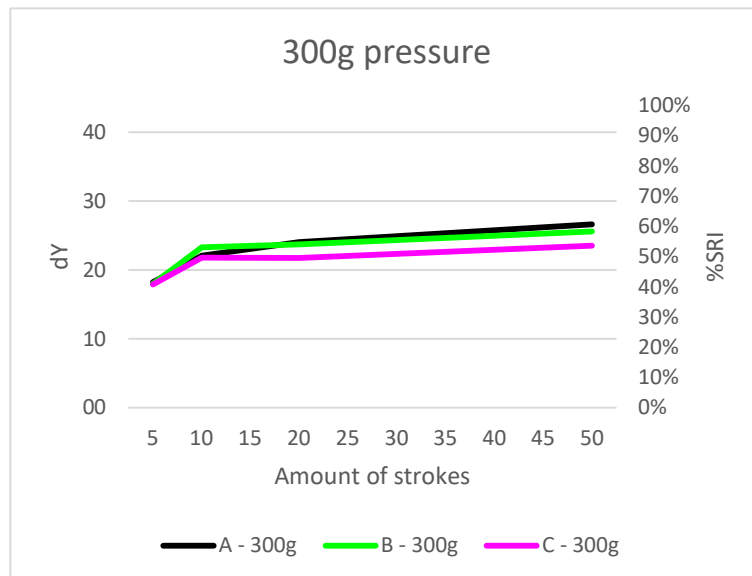


**Reliability Ratio:**



# DM-77

## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



### Example soil removal pictures



1 stroke



10 strokes



20 strokes



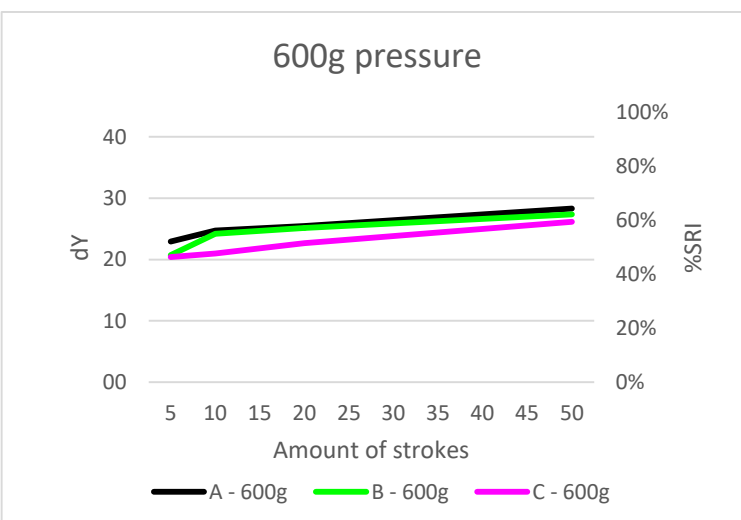
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles:

10x

Amount of pressure:

600g

Speed cycles/min:

20

Length in mm:

200

Utensil:

CFT sponge (soft)

Application method:

SOAK

# DM-177

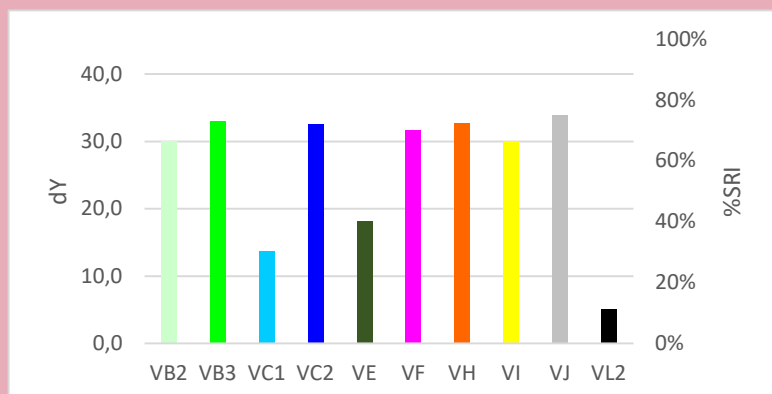
Mixed (corn/rice) starch,  
coloured, extra severe



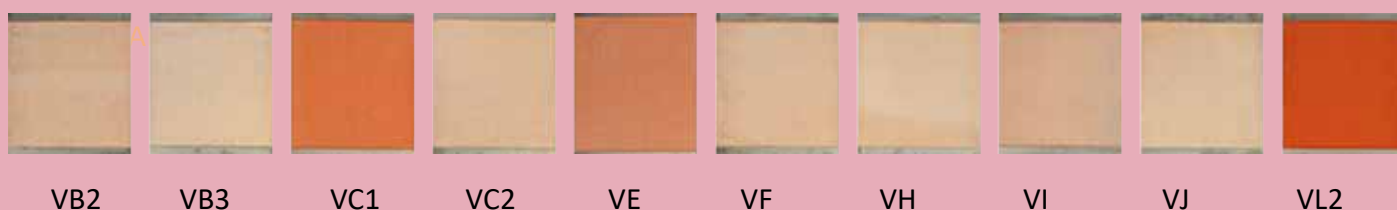
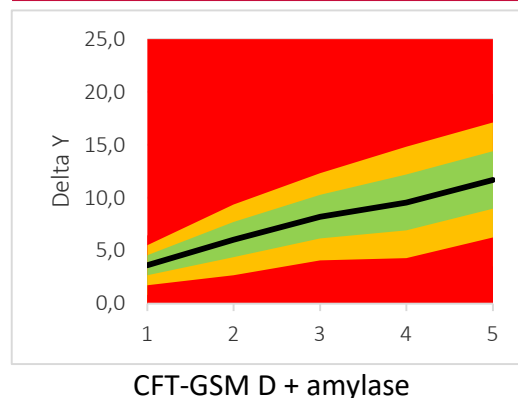
Discriminative Power: ★★☆☆☆  
Reproducibility Ratio: ★★★★★  
Reliability Ratio: ★★★★★  
Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-177	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-177	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DG-177	Glass plate, grated (DG I)	120 x 100 x 2	59,4

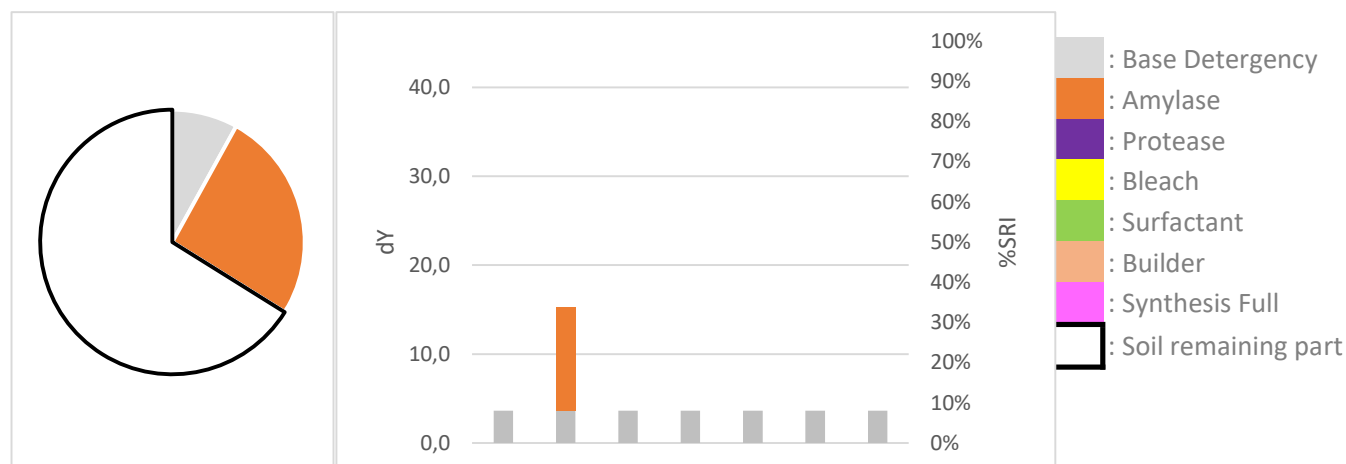
## Autodish detergent comparison



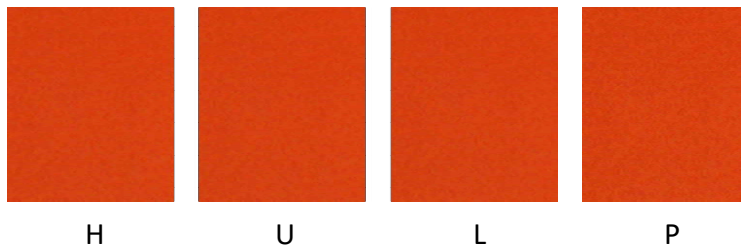
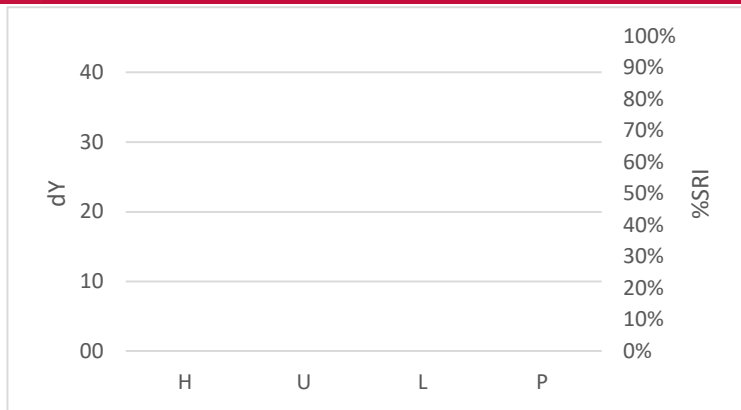
## Quality Control



## Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**

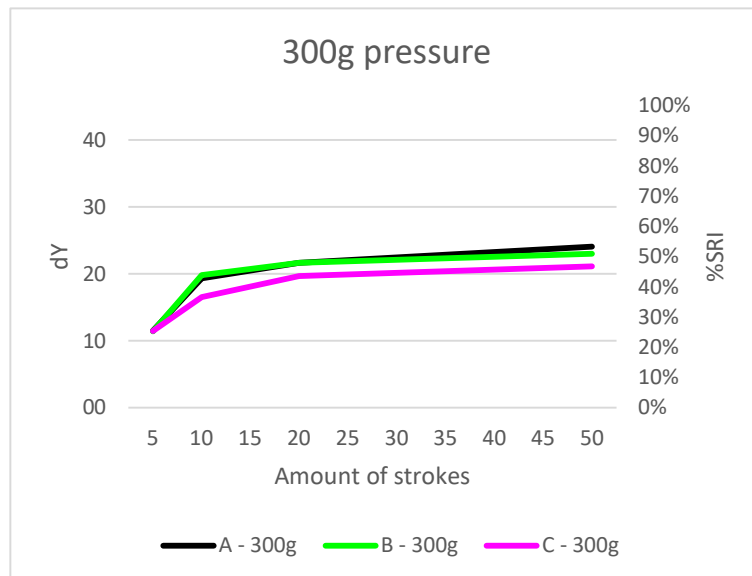


**Reliability Ratio:**



# DM-177

## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



### Example soil removal pictures



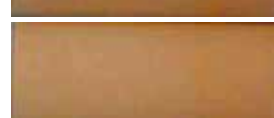
1 stroke



10 strokes



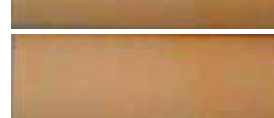
20 strokes



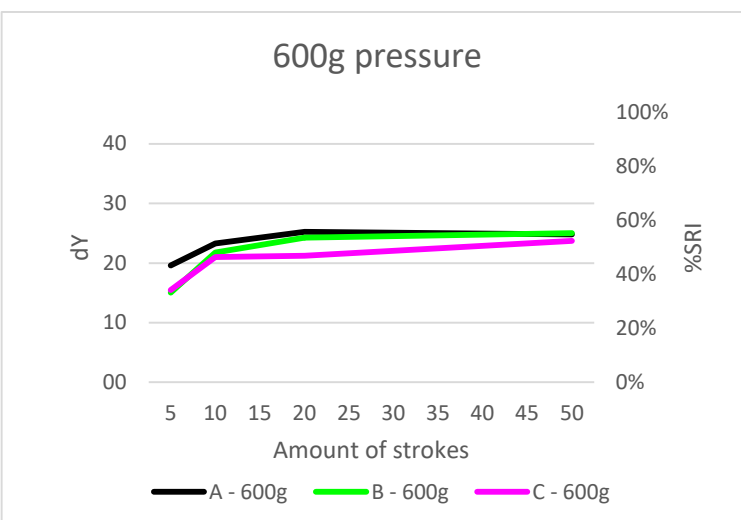
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles:

20x

Amount of pressure:

600g

Speed cycles/min:

20

Length in mm:

200

Utensil:

CFT sponge (soft)

Application method:

SOAK

# DM-277

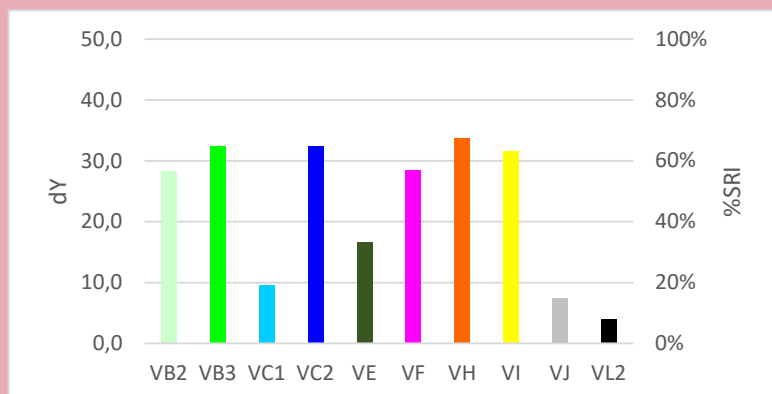
Mixed (corn/rice) starch,  
coloured, double soil load



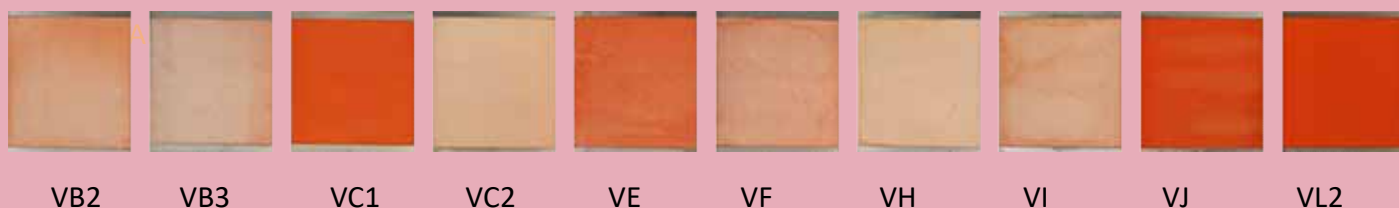
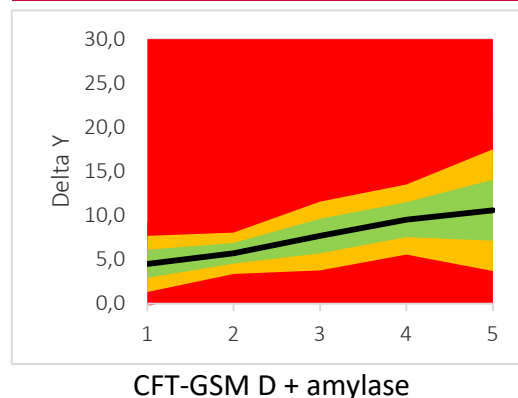
Discriminative Power: ★★ ★★ ★★ ★★ ★★  
 Reproducibility Ratio: ★★ ★★ ★★ ★★ ★★  
 Reliability Ratio: ★★ ★★ ★★ ★★ ★★  
 Popularity: ★★ ★★ ★★ ★★ ★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-277	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-277	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DG-277	Glass plate, grated (DG I)	120 x 100 x 2	59,4

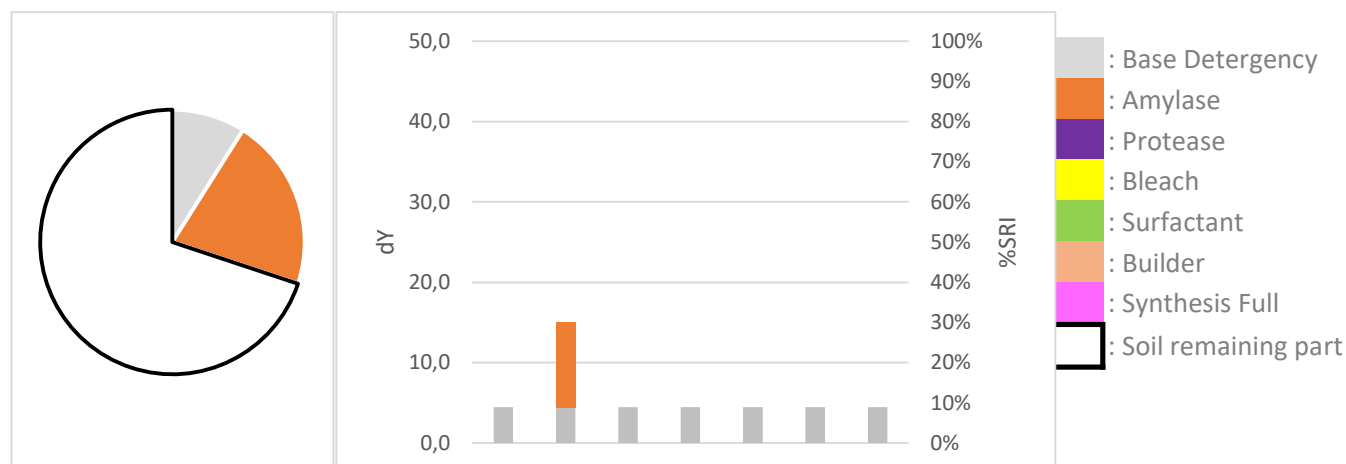
## Autodish detergent comparison



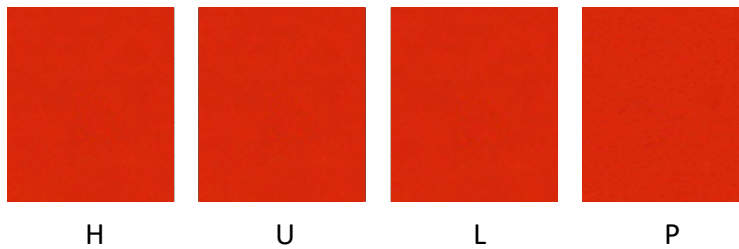
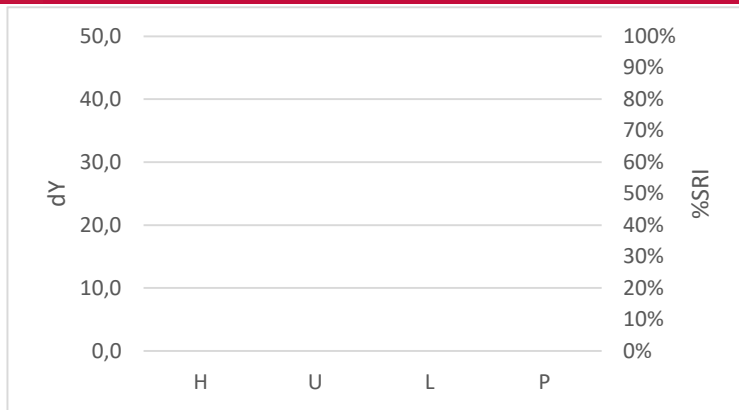
## Quality Control



## Autodish detergent component response



## Professional cleaning detergent comparison



# DM-277

**Discriminative Power:**



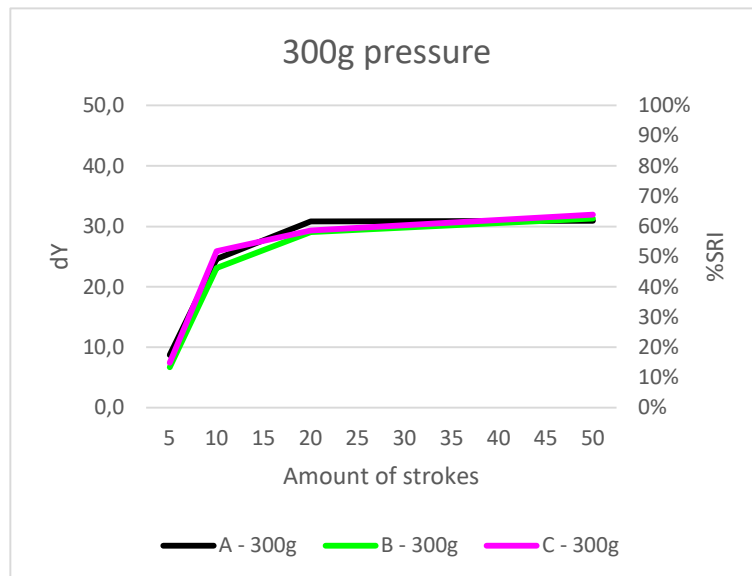
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



### Example soil removal pictures



1 stroke



10 strokes



20 strokes



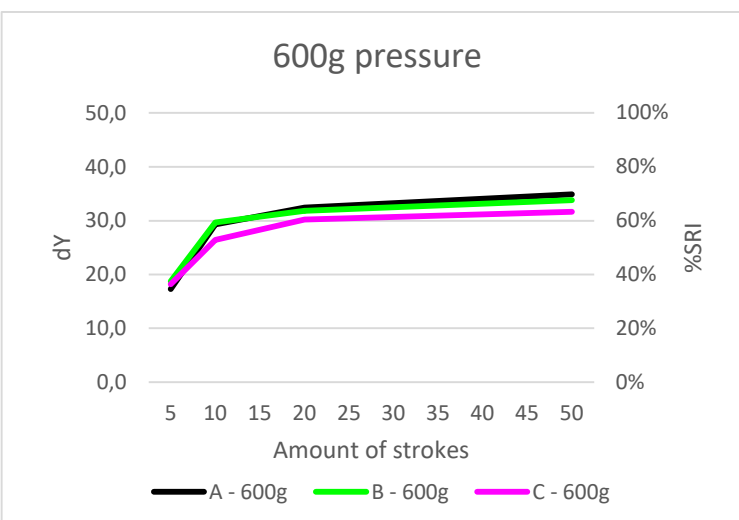
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-377

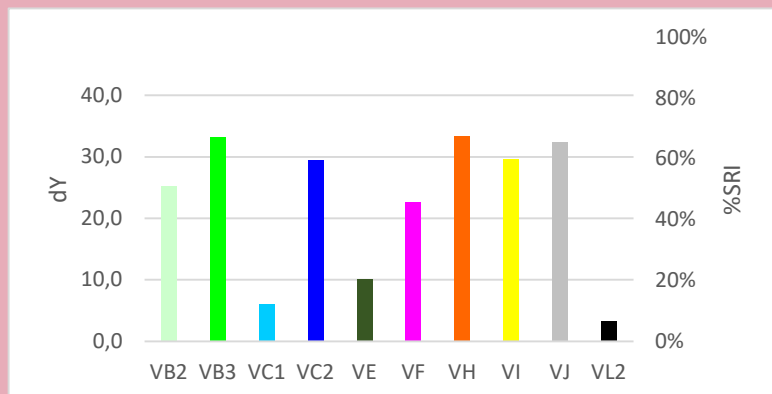
## Mixed (corn/rice) starch, coloured, triple soil load



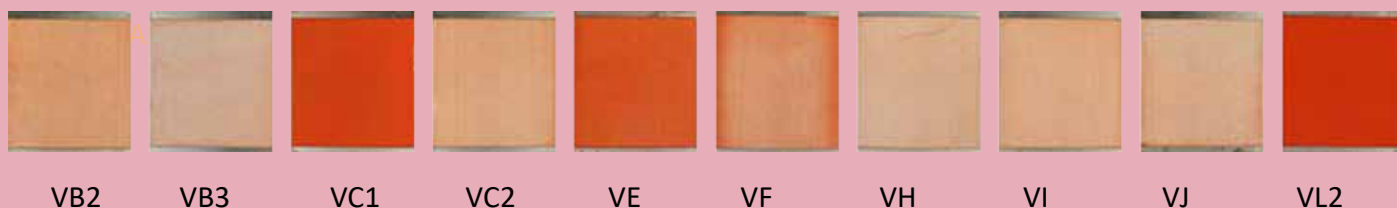
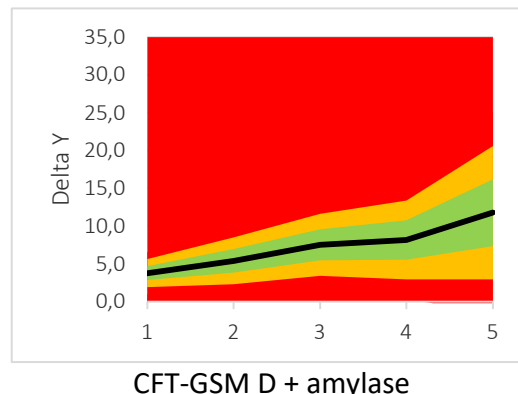
Discriminative Power: ★★ ★★ ★★ ★★ ★★  
 Reproducibility Ratio: ★★ ★★ ★★ ★★ ★★  
 Reliability Ratio: ★★ ★★ ★★ ★★ ★★  
 Popularity: ★★ ★★ ★★ ★★ ★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-377	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-377	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DG-377	Glass plate, grated (DG I)	120 x 100 x 2	59,4

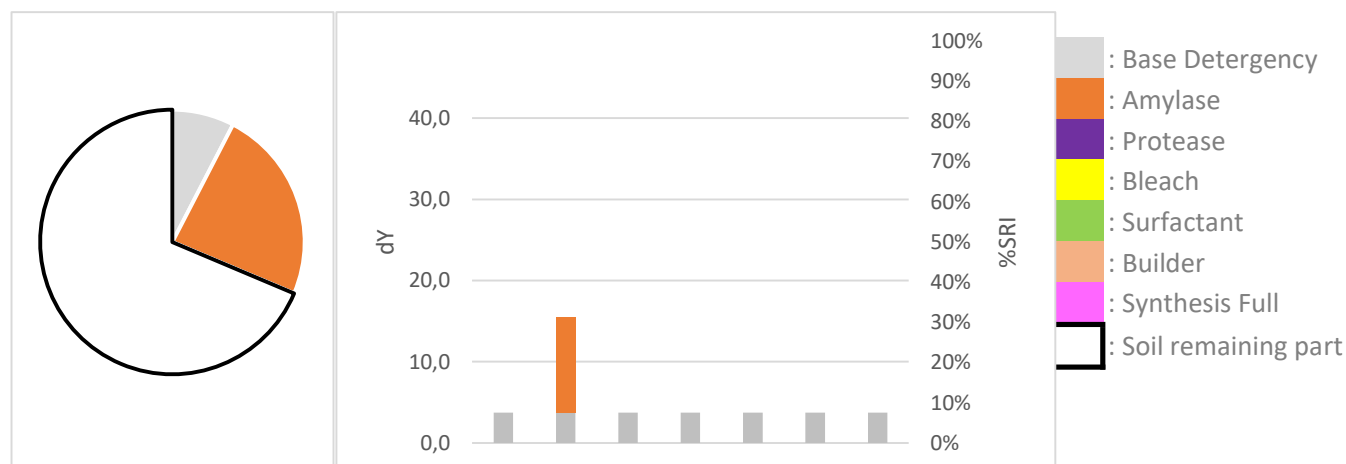
### Autodish detergent comparison



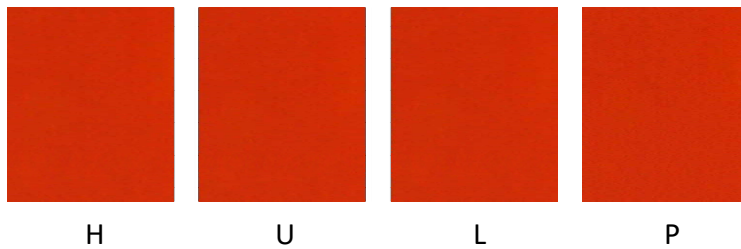
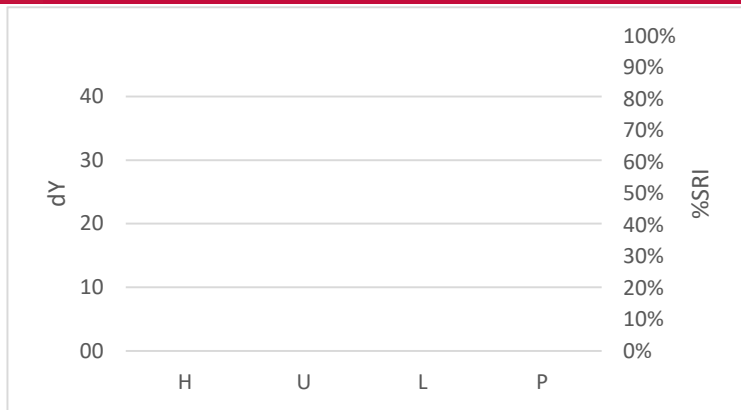
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**

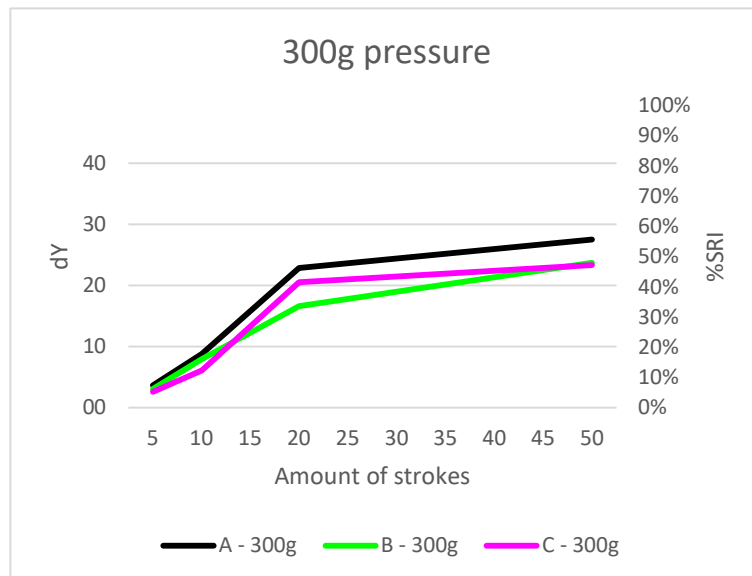


**Reliability Ratio:**



# DM-377

## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke



10 strokes



20 strokes



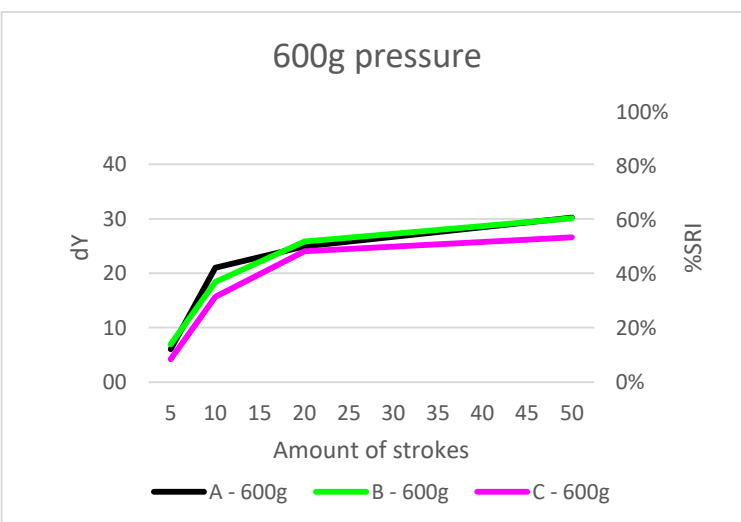
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles:

20x

Amount of pressure:

300g

Speed cycles/min:

20

Length in mm:

200

Utensil:

CFT sponge (soft)

Application method:

SOAK

# DM-477

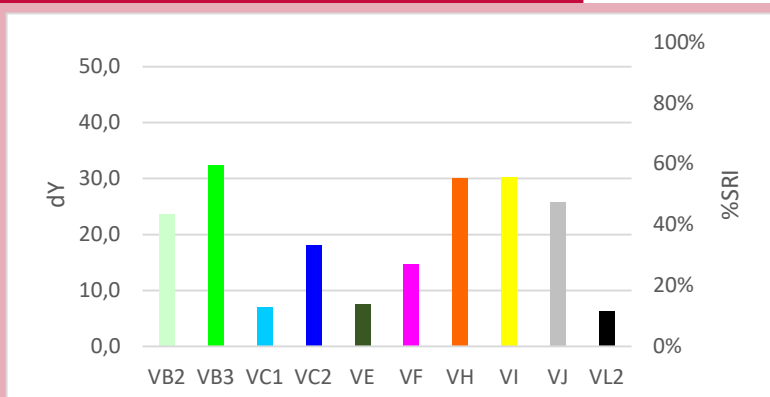
Mixed (corn/rice) starch,  
coloured, heavy load  
extra stubborn



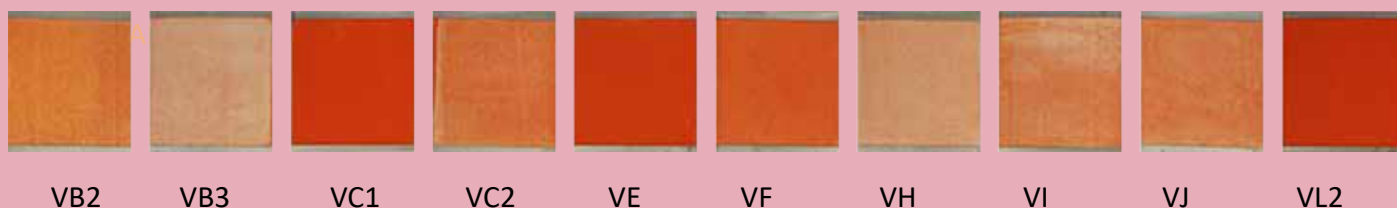
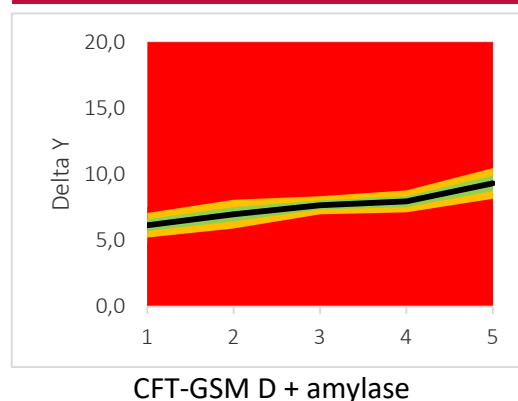
Discriminative Power: ★★ ★★ ★★ ★★ ★★  
 Reproducibility Ratio: ★★ ★★ ★★ ★★ ★★  
 Reliability Ratio: ★★ ★★ ★★ ★★ ★★  
 Popularity: ★★ ★★ ★★ ★★ ★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-477	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0

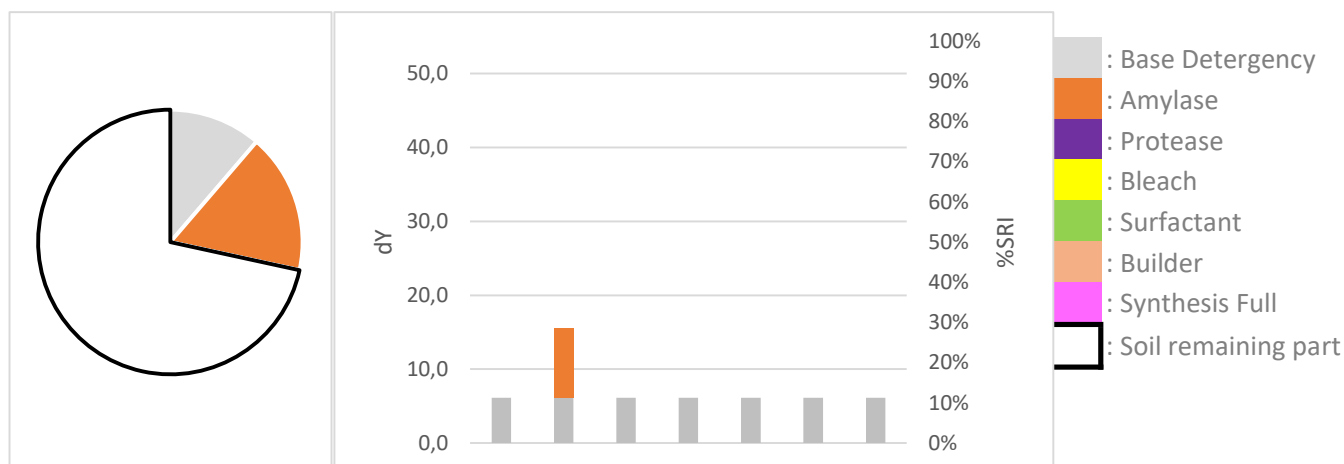
## Autodish detergent comparison



## Quality Control

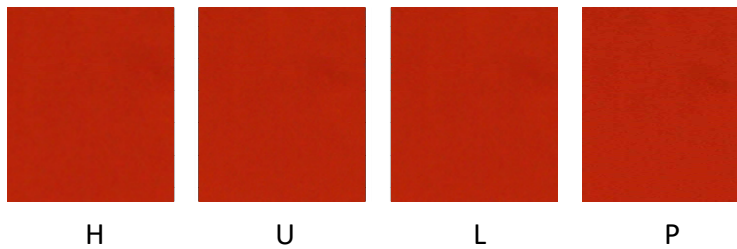
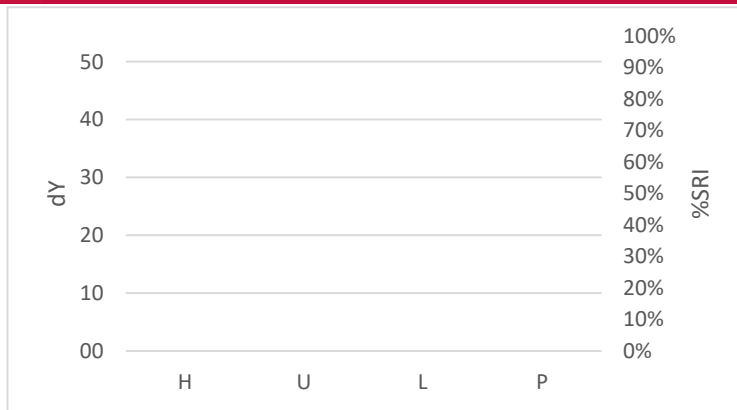


## Autodish detergent component response





## Professional cleaning detergent comparison



**Discriminative Power:**



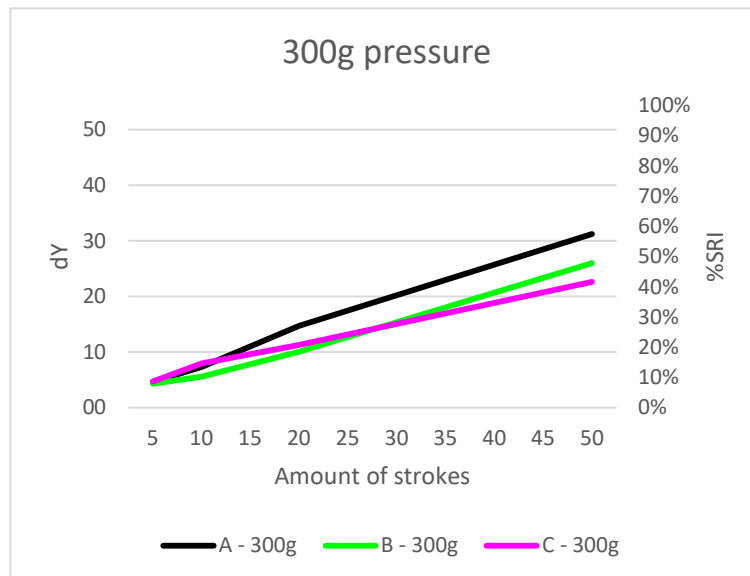
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



### Example soil removal pictures



1 stroke



10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles:

50x

Amount of pressure:

300g

Speed cycles/min:

20

Length in mm:

200

Utensil:

CFT sponge (soft)

Application method:

SOAK

# DM-78

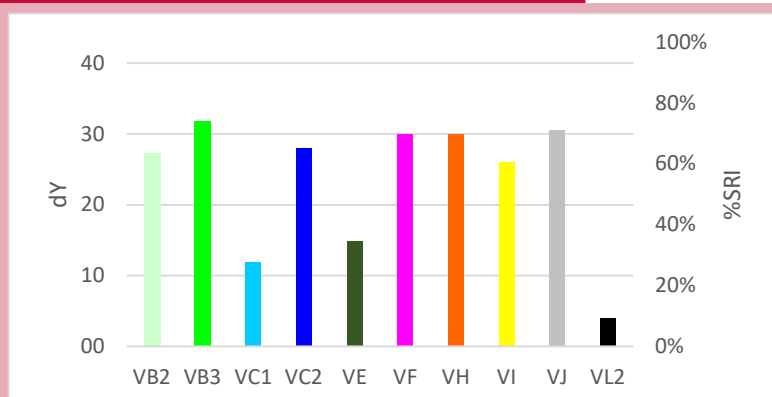
## Rice starch, coloured



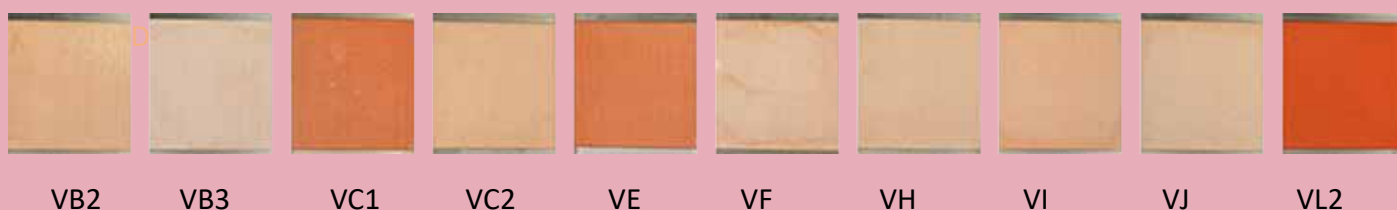
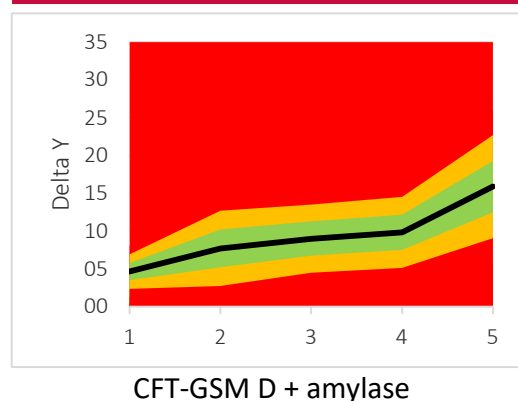
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-78	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-78	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-78	Steel plate, grated (DS I)	120 x 100 x 1	47,4
DG-78	Glass plate, grated (DG I)	120 x 100 x 2	59,4

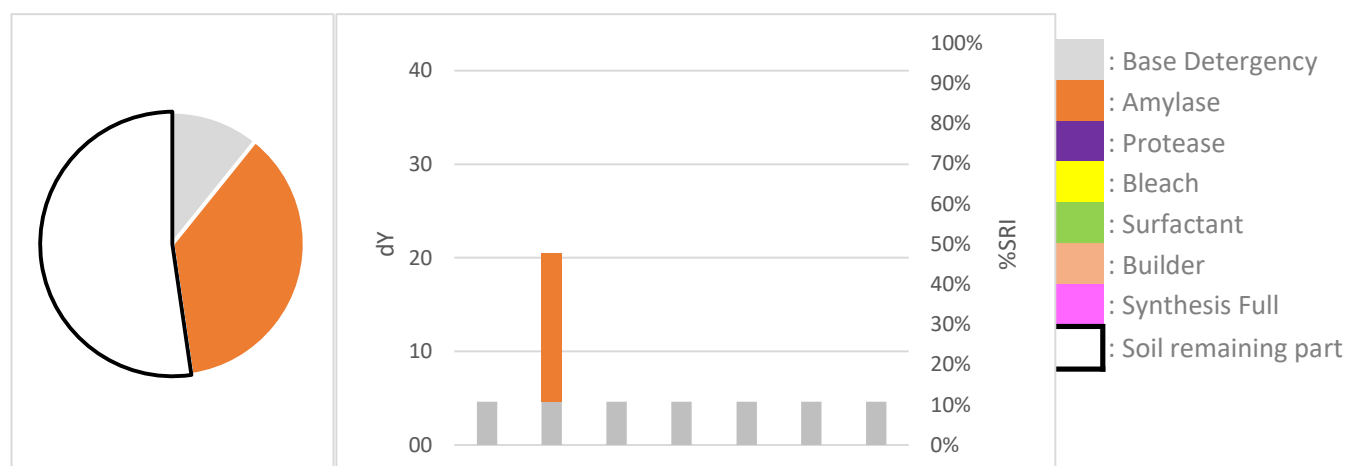
### Autodish detergent comparison



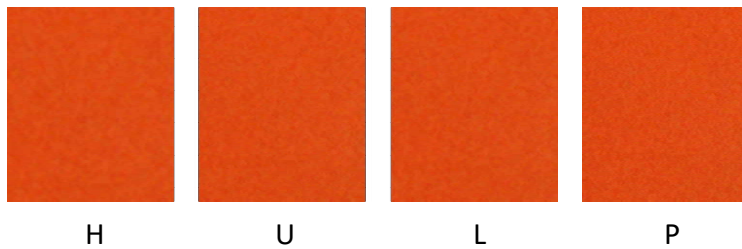
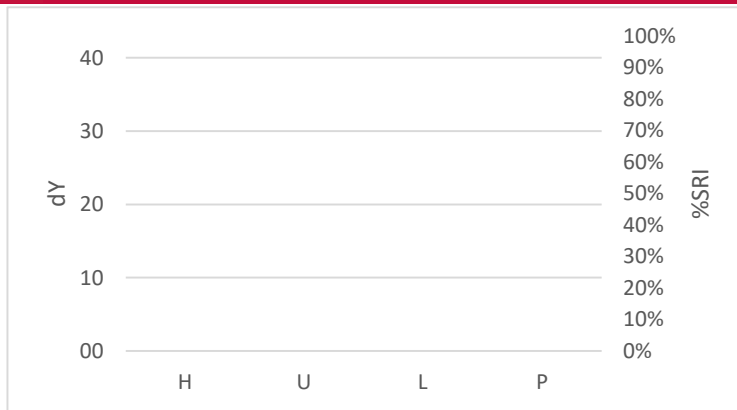
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**

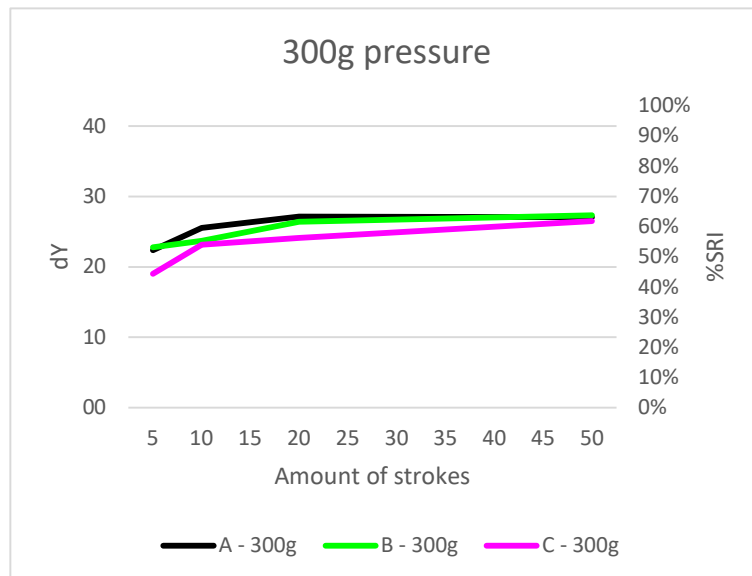


**Reliability Ratio:**



# DM-78

## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



### Example soil removal pictures



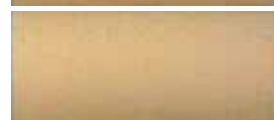
1 stroke



10 strokes



20 strokes



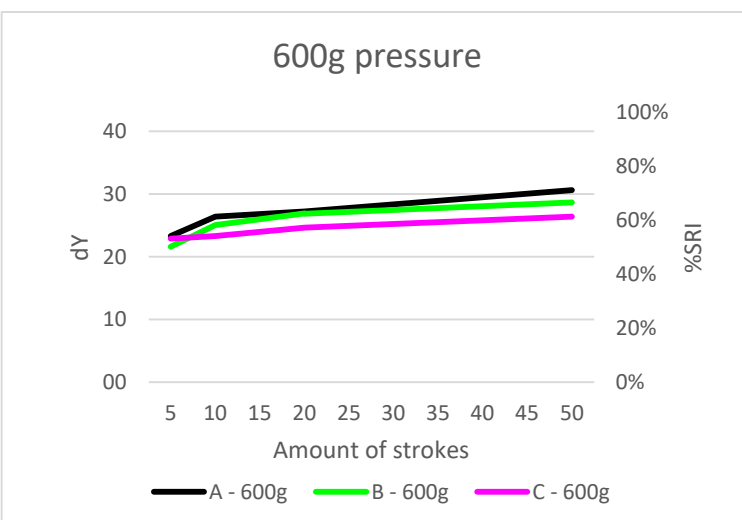
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-178

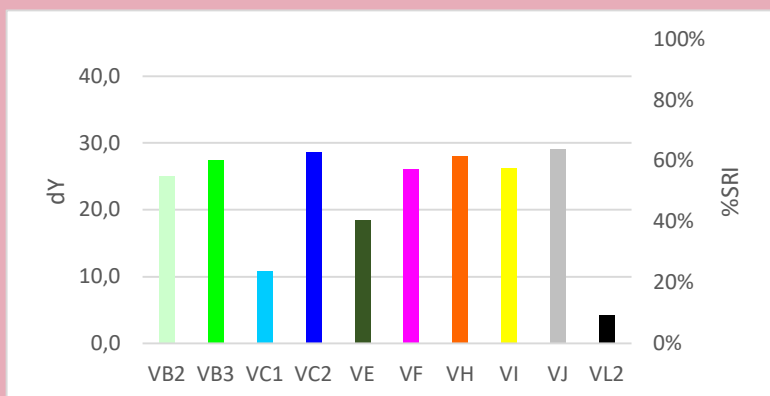
## Rice starch, coloured, extra severe



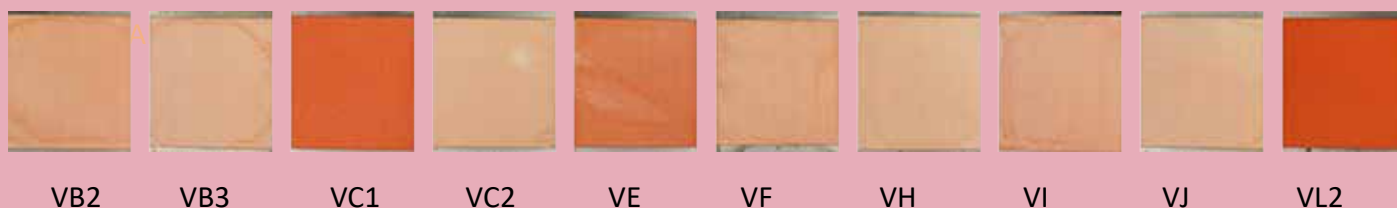
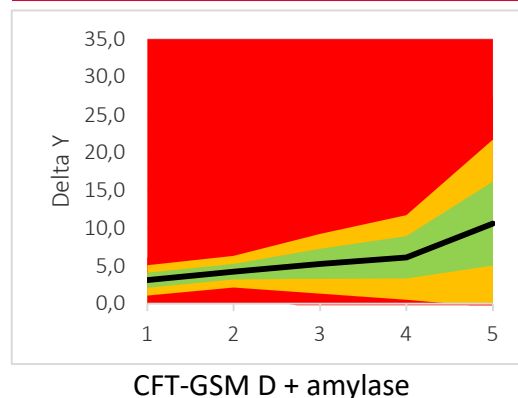
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-178	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-178	Technical Porcelain (DT H)	120 x 100 x 1	87,2

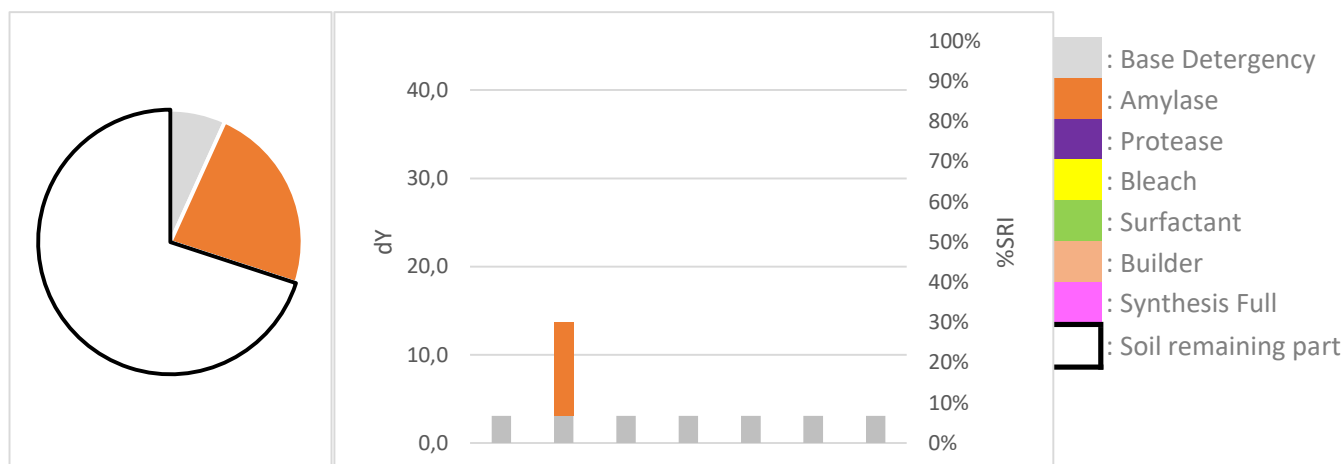
### Autodish detergent comparison



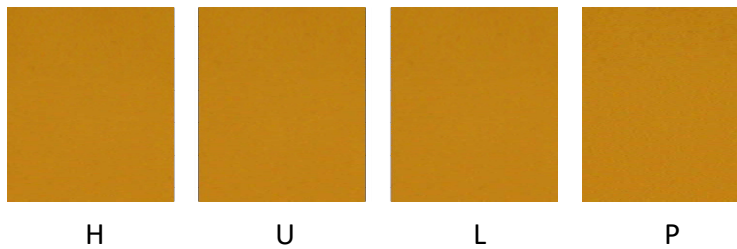
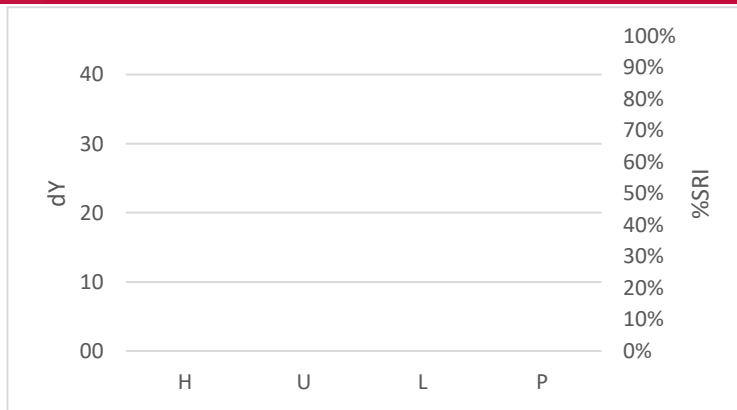
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-178

**Discriminative Power:**



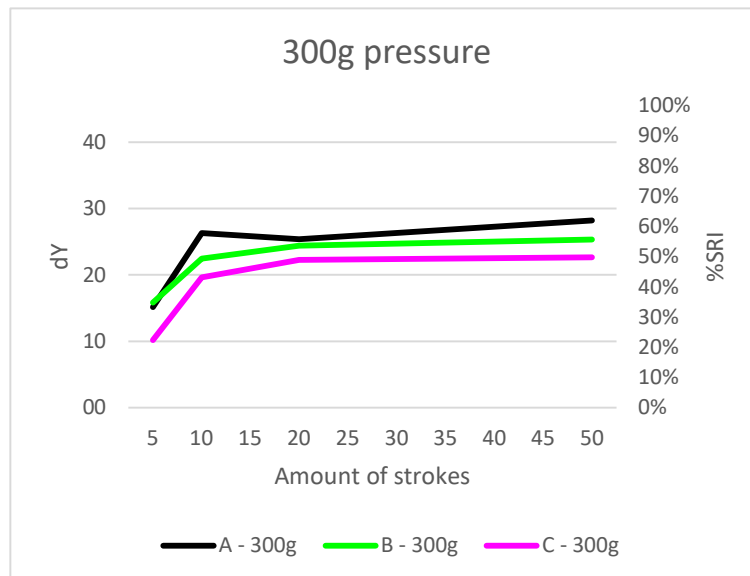
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



### Example soil removal pictures



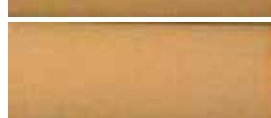
1 stroke



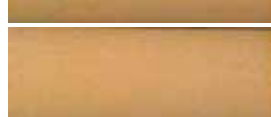
10 strokes



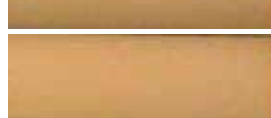
20 strokes



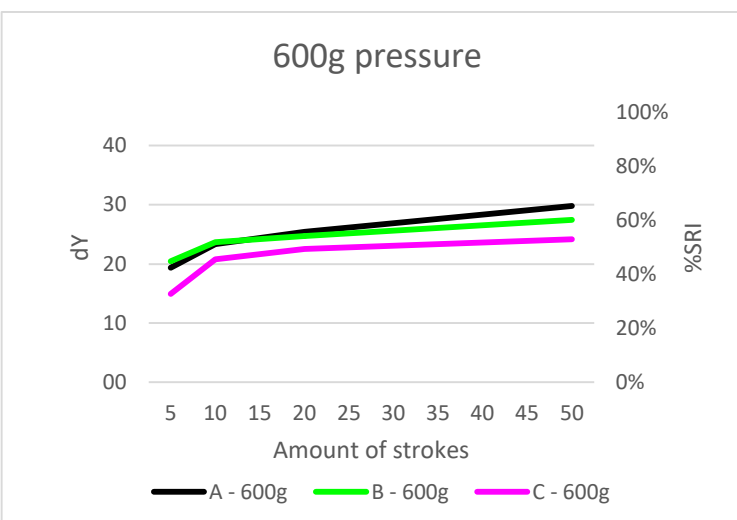
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-278

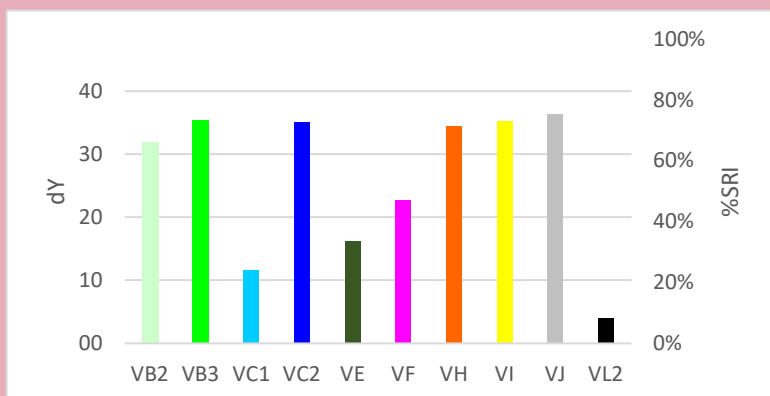
## Rice starch, coloured, double soiled



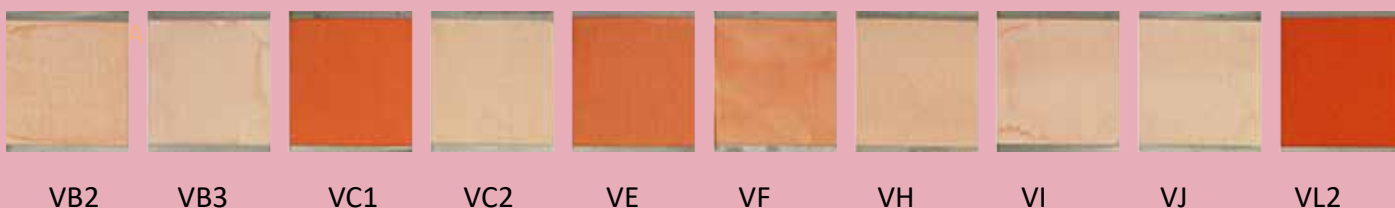
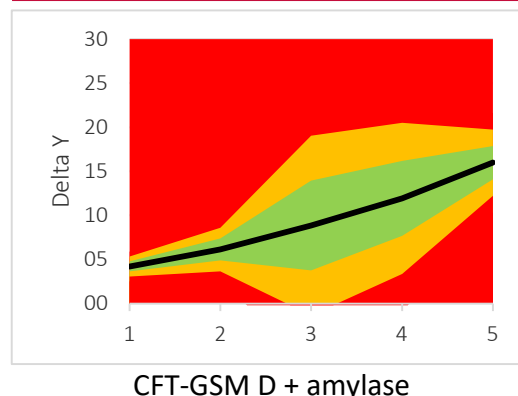
Discriminative Power: ★★★★★  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★☆☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-278	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-278	Technical Porcelain (DT H)	120 x 100 x 1	87,2

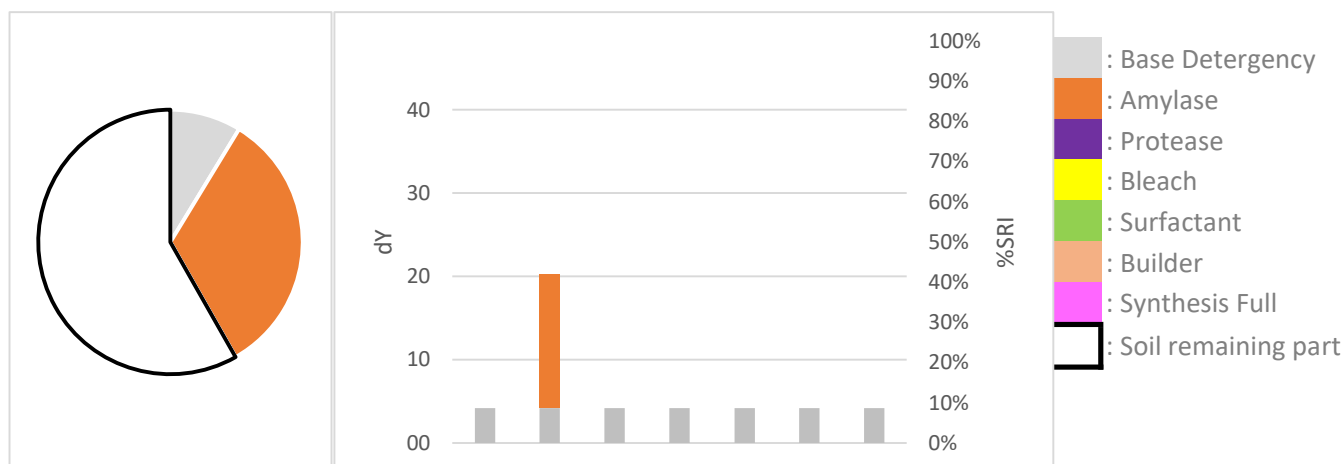
### Autodish detergent comparison



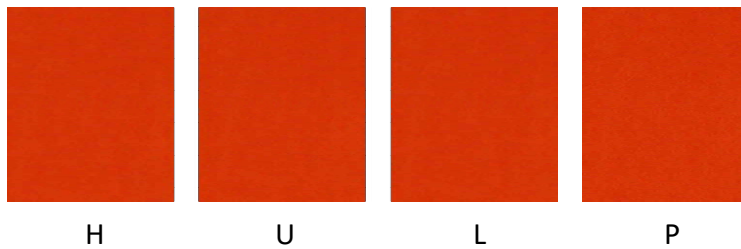
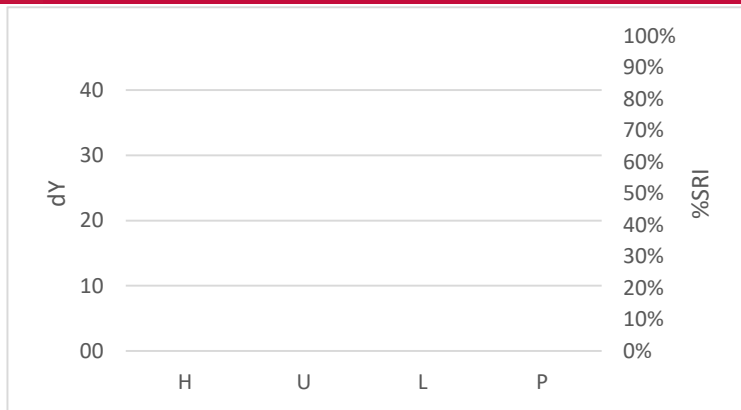
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-278

**Discriminative Power:**



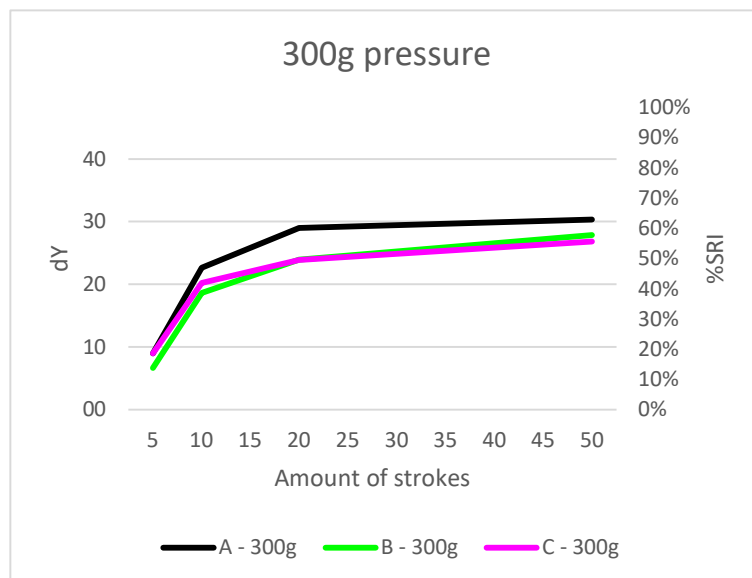
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke



10 strokes



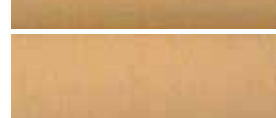
20 strokes



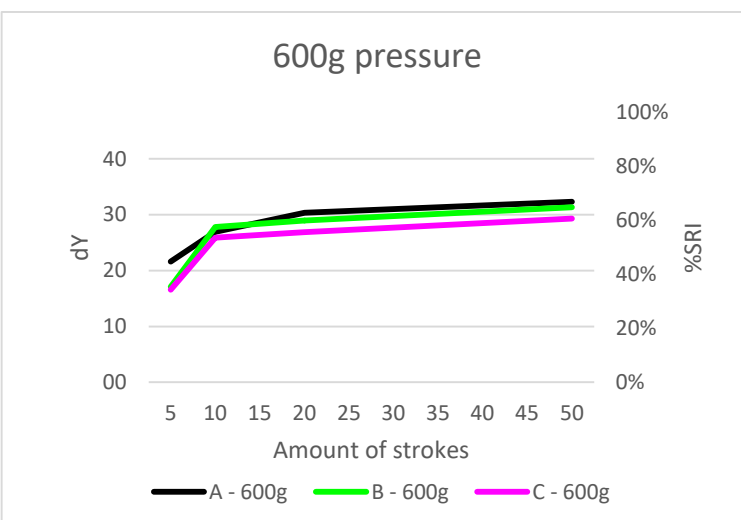
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 20x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-378

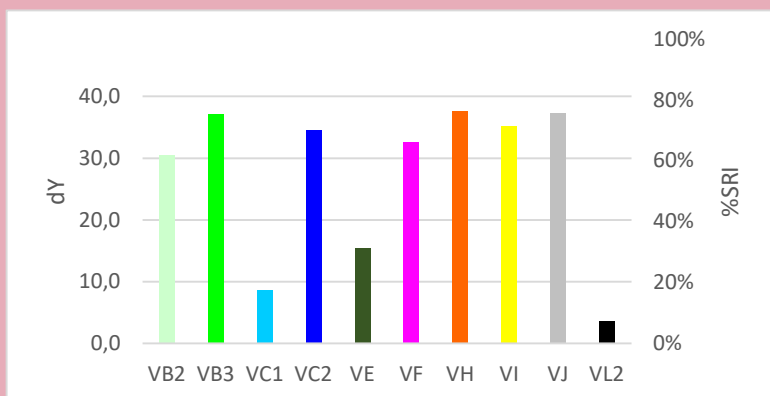
## Rice starch, coloured, triple soil load



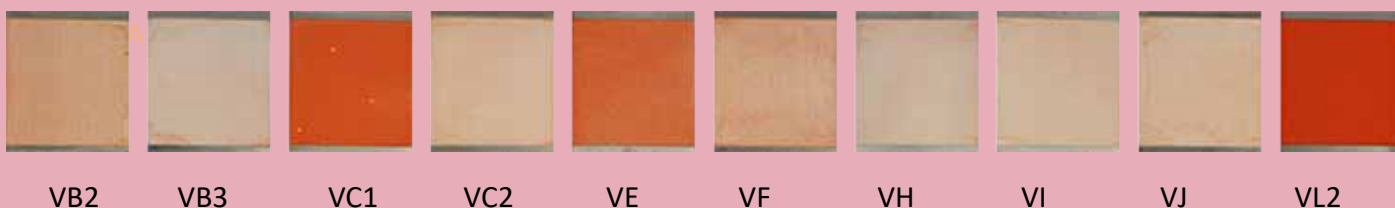
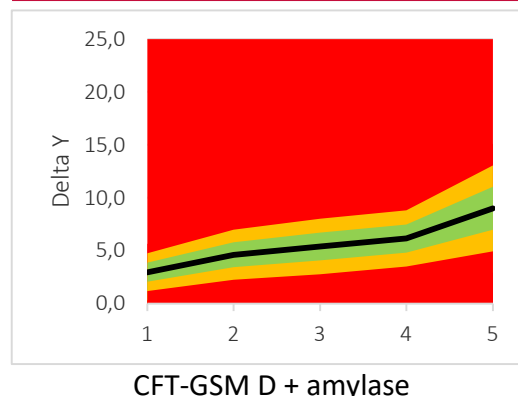
Discriminative Power: ★★ ★★ ★★ ★★ ★★  
 Reproducibility Ratio: ★★ ★★ ★★ ★★ ★★  
 Reliability Ratio: ★★ ★★ ★★ ★★ ★★  
 Popularity: ★★ ★★ ★★ ★★ ★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-378	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-378	Technical Porcelain (DT H)	120 x 100 x 1	87,2

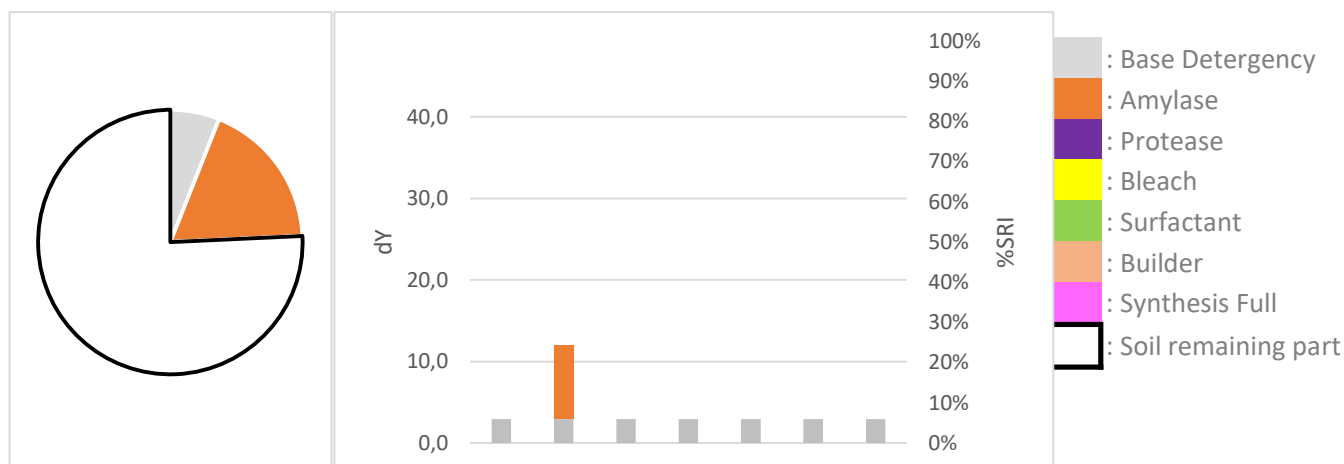
### Autodish detergent comparison



### Quality Control

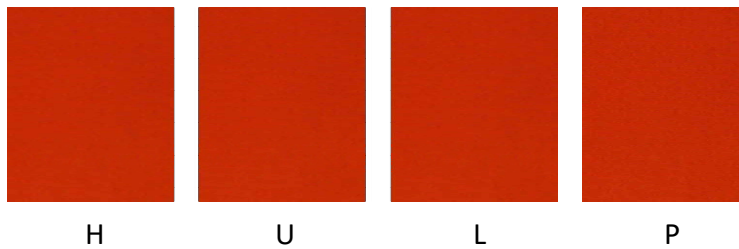
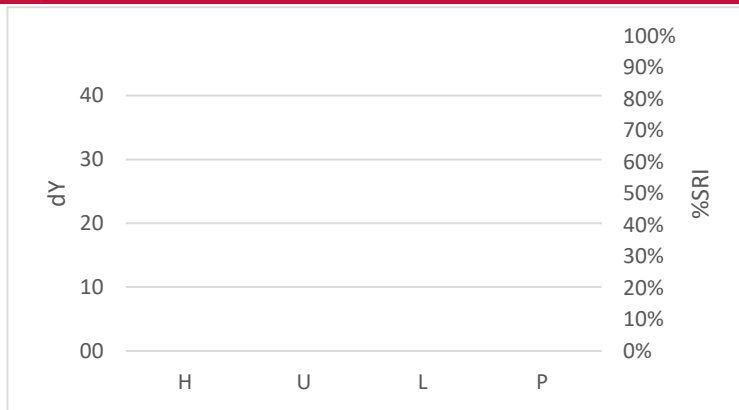


### Autodish detergent component response





## Professional cleaning detergent comparison



# DM-378

**Discriminative Power:**



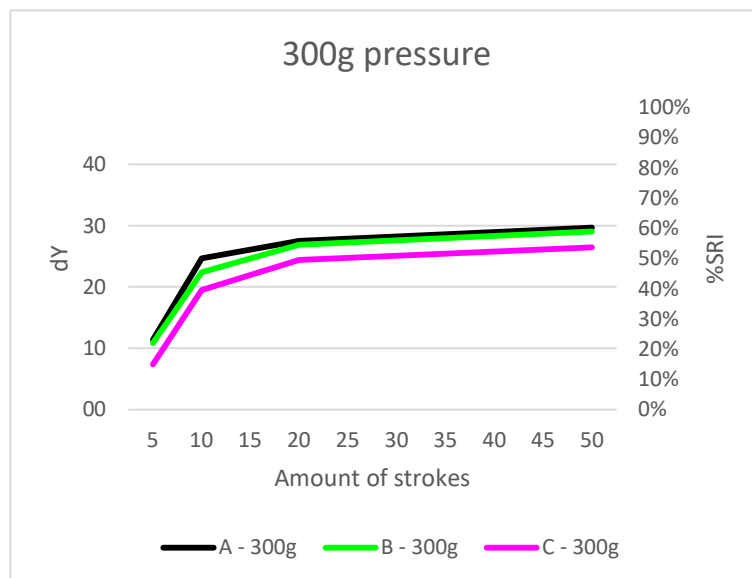
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



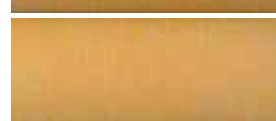
1 stroke



10 strokes



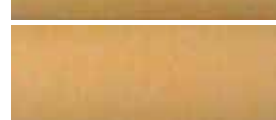
20 strokes



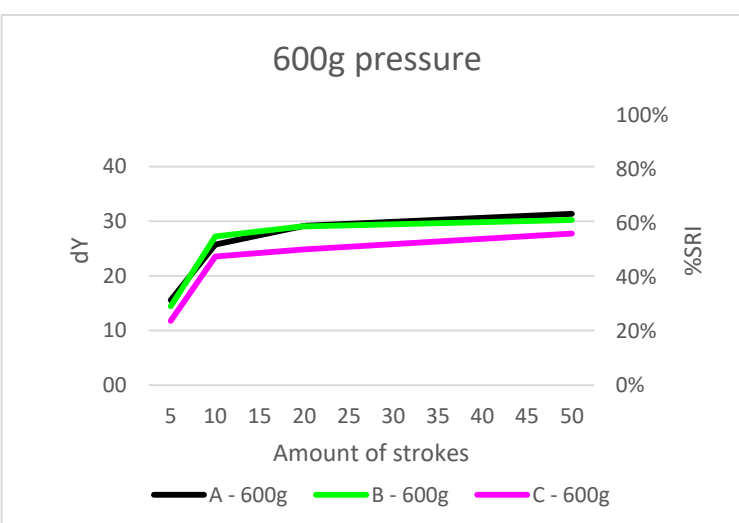
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 10x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: SOAK

# DM-79

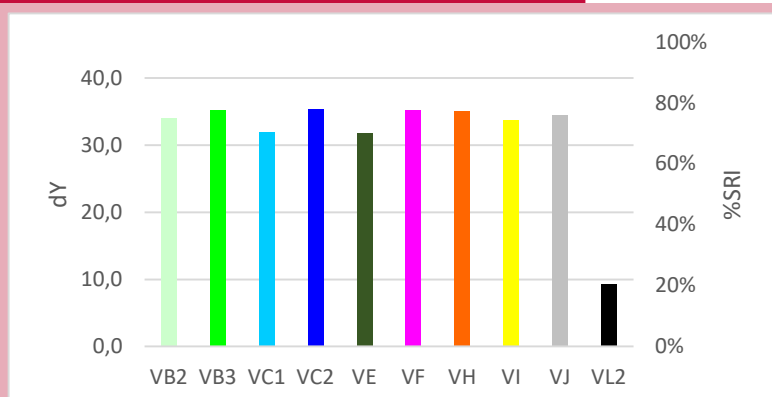
## Potato starch, coloured



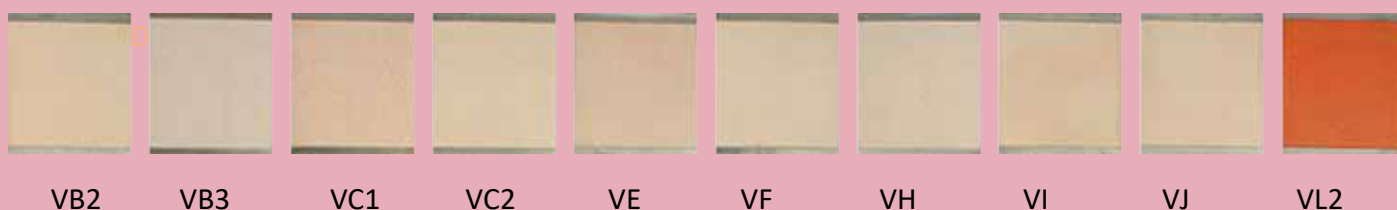
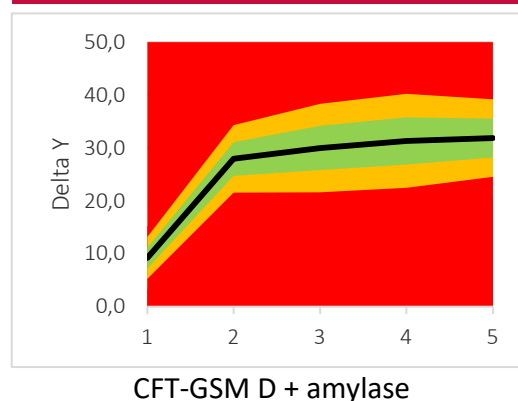
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-79	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0
DT-79	Technical Porcelain (DT H)	120 x 100 x 1	87,2

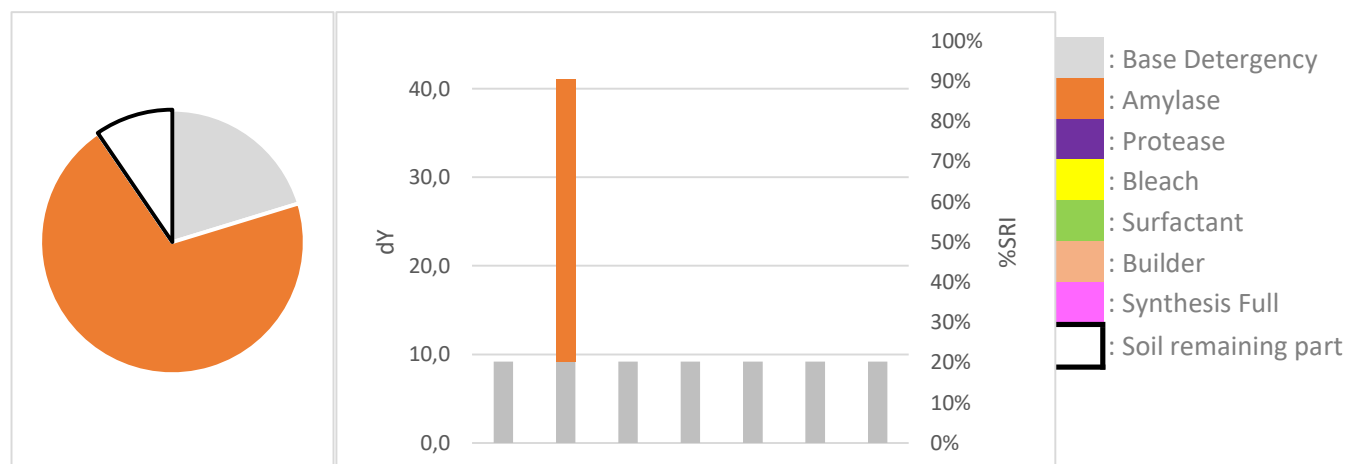
### Autodish detergent comparison



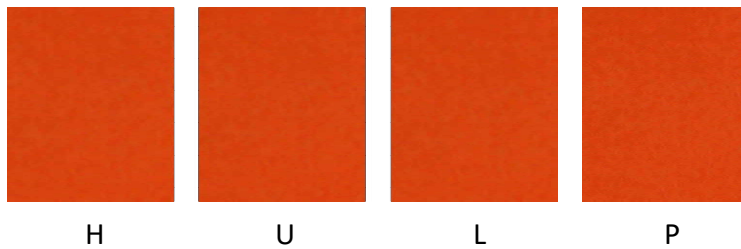
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**

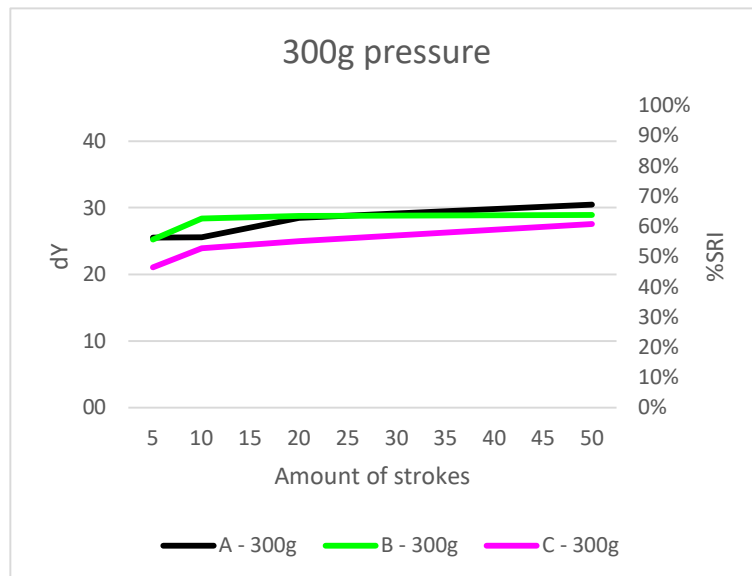


**Reliability Ratio:**



# DM-79

## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



### Example soil removal pictures



1 stroke



10 strokes



20 strokes



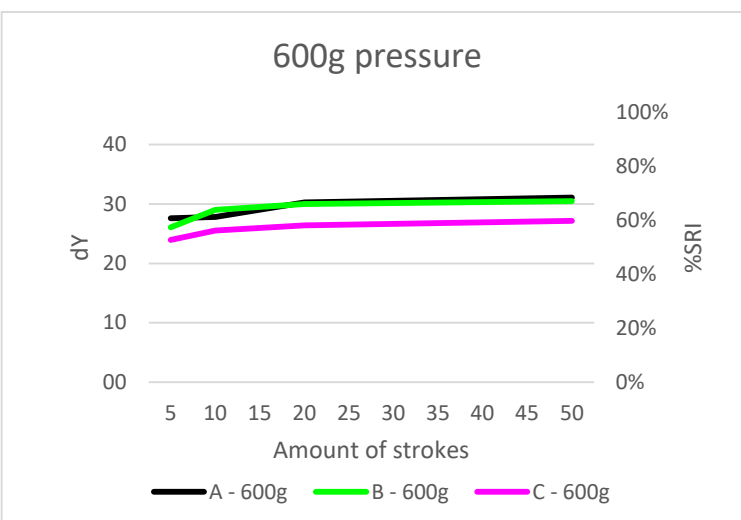
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles:

10x

Amount of pressure:

300g

Speed cycles/min:

20

Length in mm:

200

Utensil:

CFT sponge (soft)

Application method:

SOAK

# DM-81

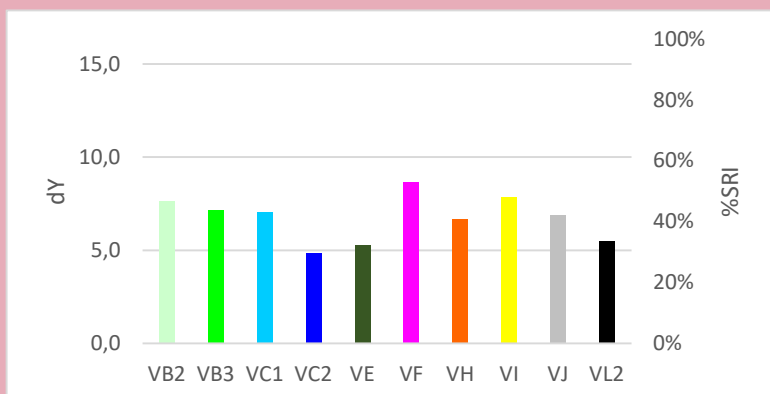
## Coffee



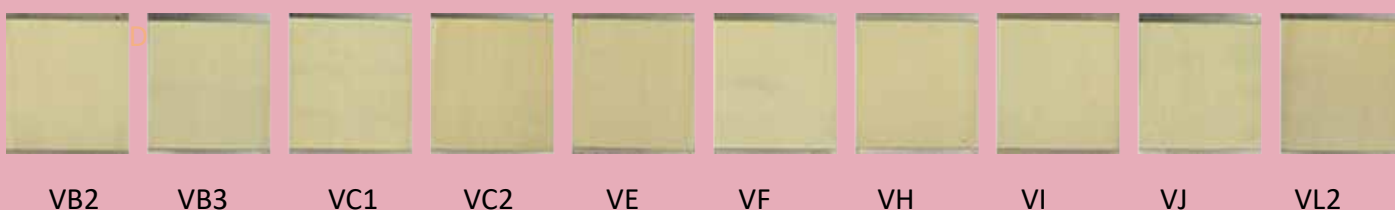
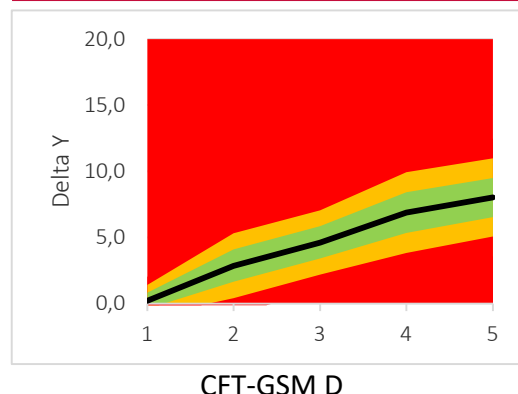
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-81	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0

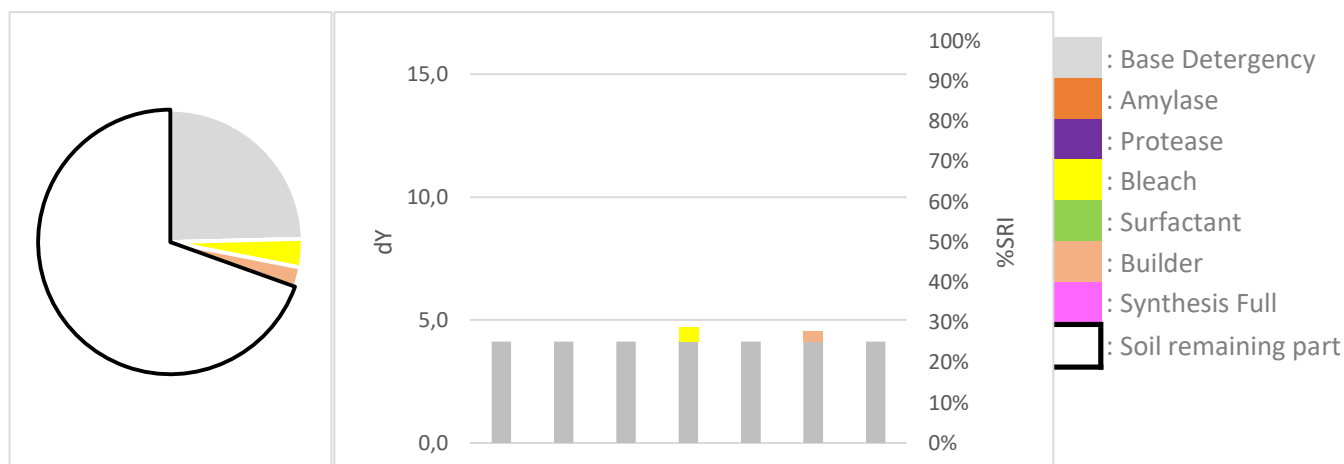
### Autodish detergent comparison



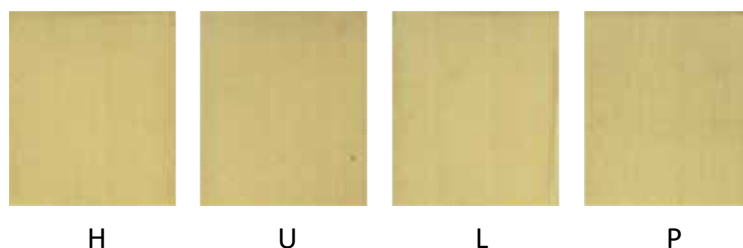
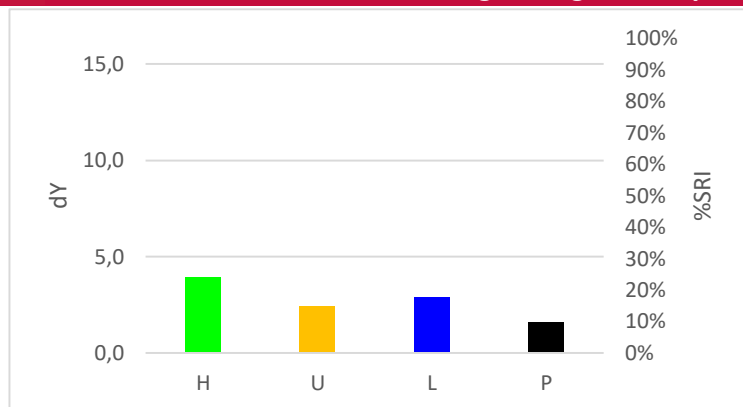
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



# DM-81

**Discriminative Power:**



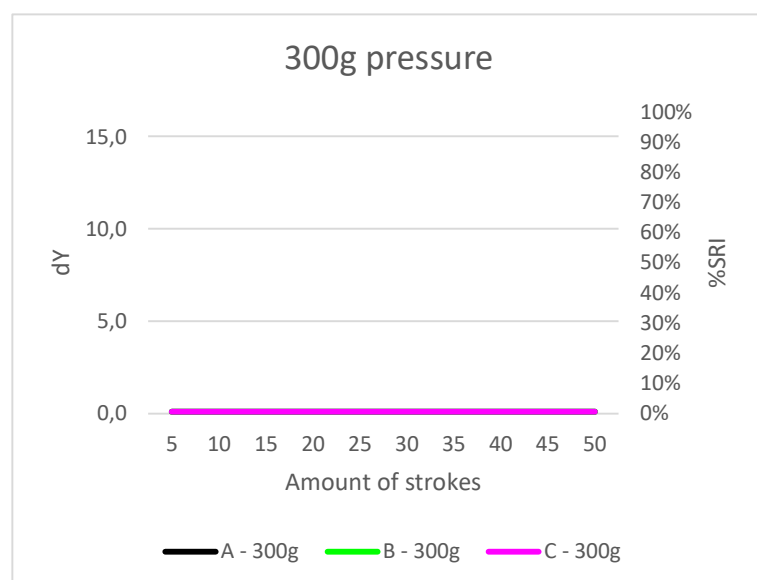
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



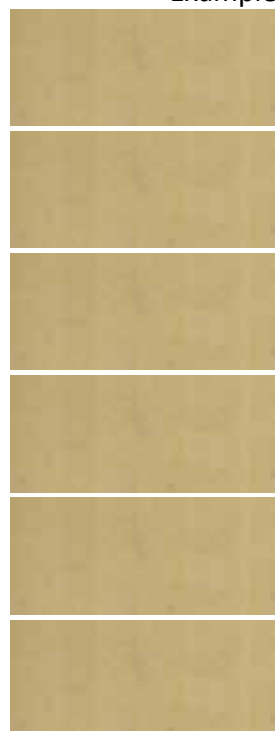
**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke

10 strokes

20 strokes

30 strokes

40 strokes

50 strokes

### Recommended TQC testing conditions

Amount of cycles: 5x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-82

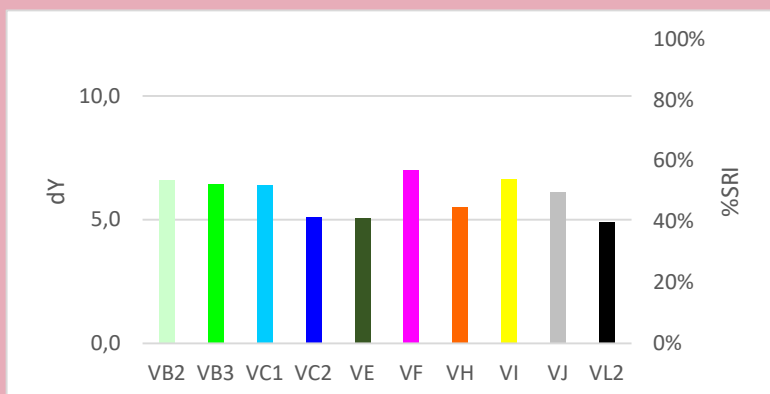
## Espresso coffee



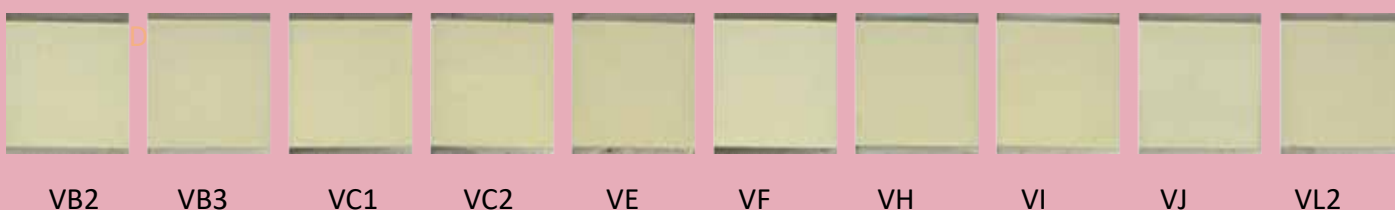
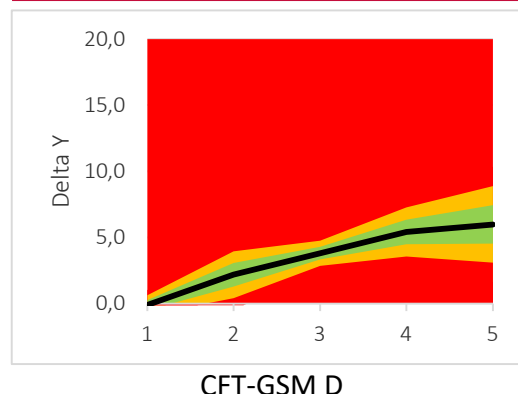
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★☆☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-82	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0

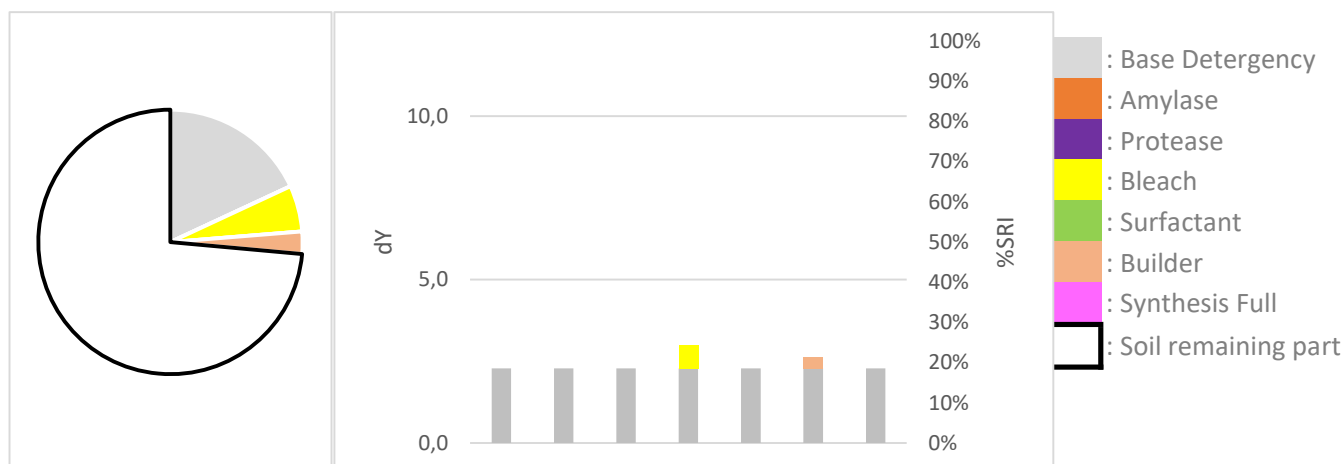
### Autodish detergent comparison



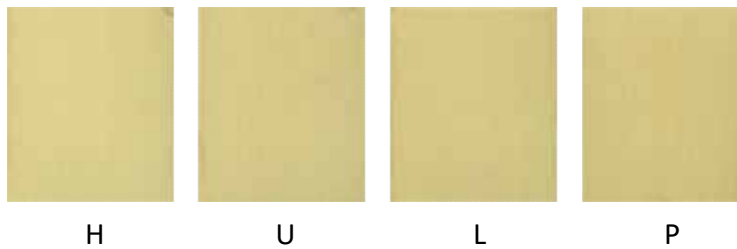
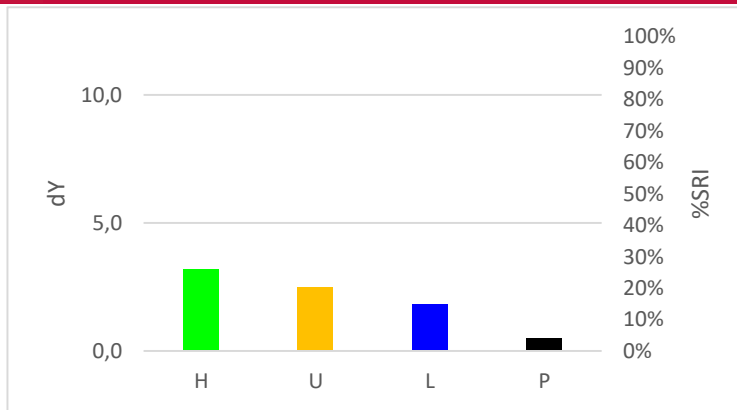
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



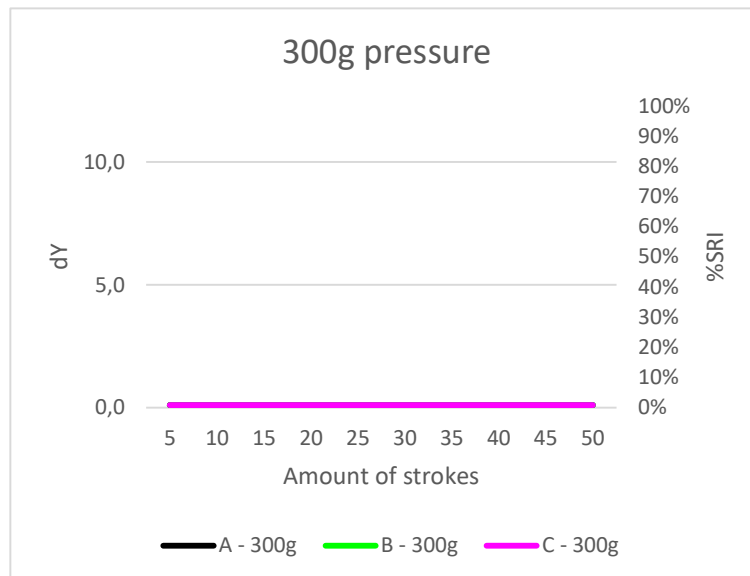
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



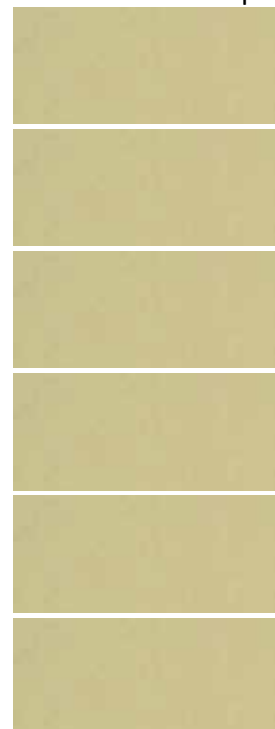
**Reproducibility Ratio:**



**Reliability Ratio:**



### Example soil removal pictures



1 stroke

10 strokes

20 strokes

30 strokes

40 strokes

50 strokes

### Recommended TQC testing conditions

Amount of cycles: 5x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-83

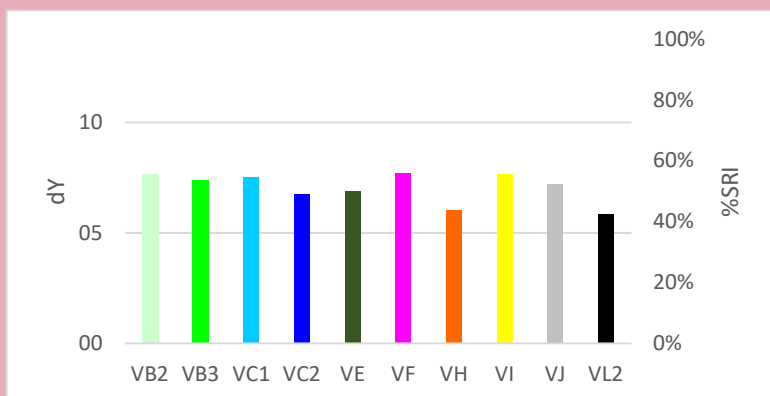
## Coffee with milk



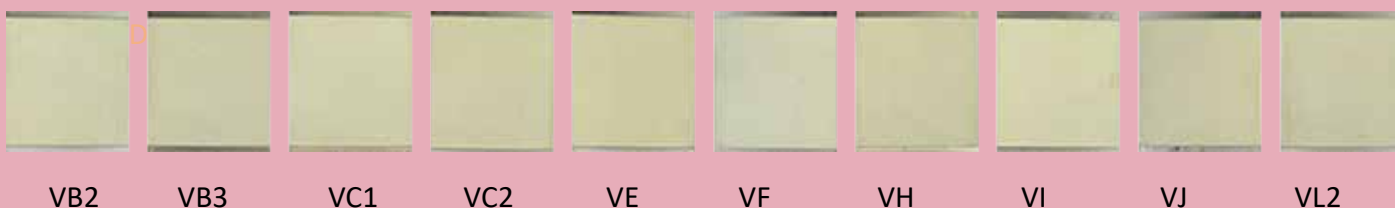
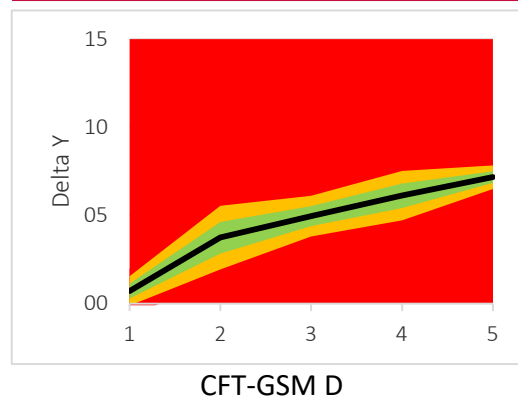
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-83	Melamine resin tile, grated top (DM I)	120 x 100 x 1,2	84,0

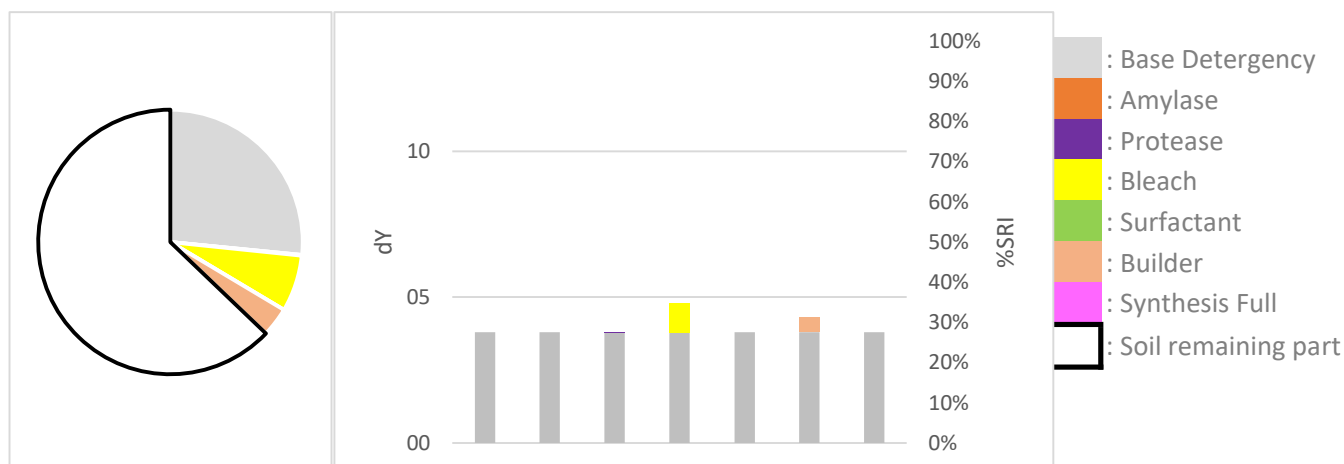
### Autodish detergent comparison



### Quality Control

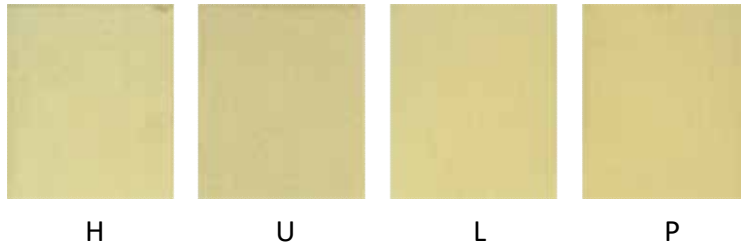
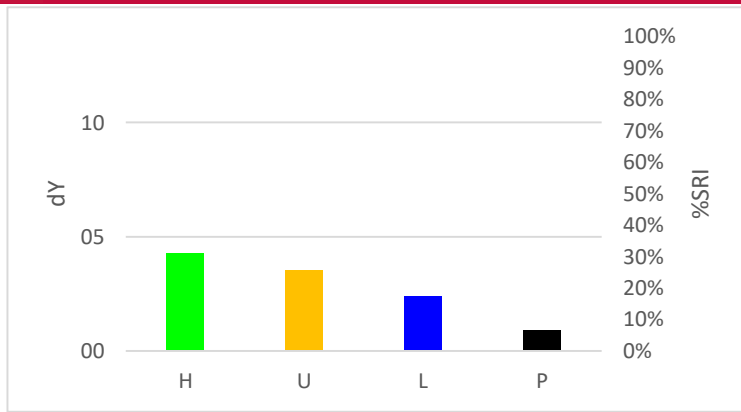


### Autodish detergent component response





## Professional cleaning detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**

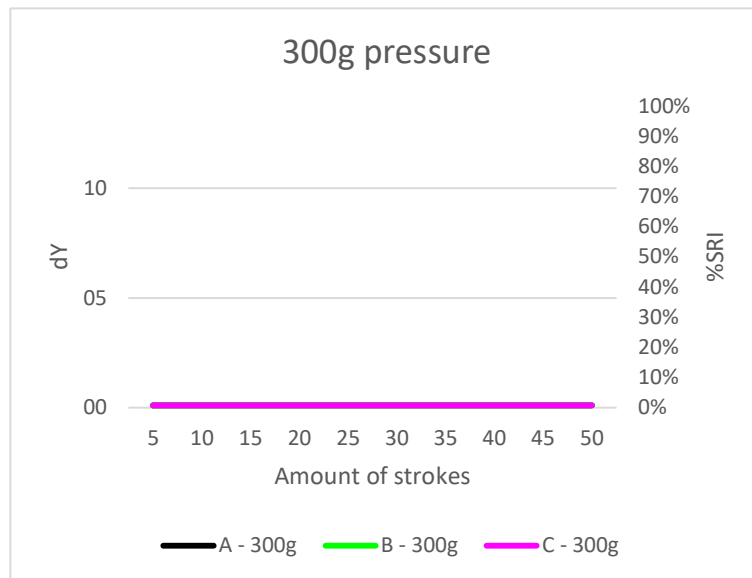


**Reliability Ratio:**



# DM-83

## Hand dishwash detergent comparison



**Discriminative Power:**



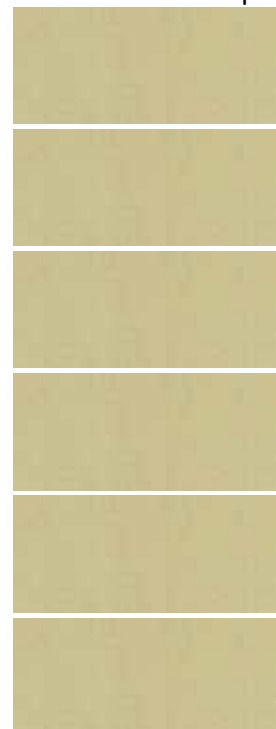
**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke

10 strokes

20 strokes

30 strokes

40 strokes

50 strokes

### Recommended TQC testing conditions

Amount of cycles: 5x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-91

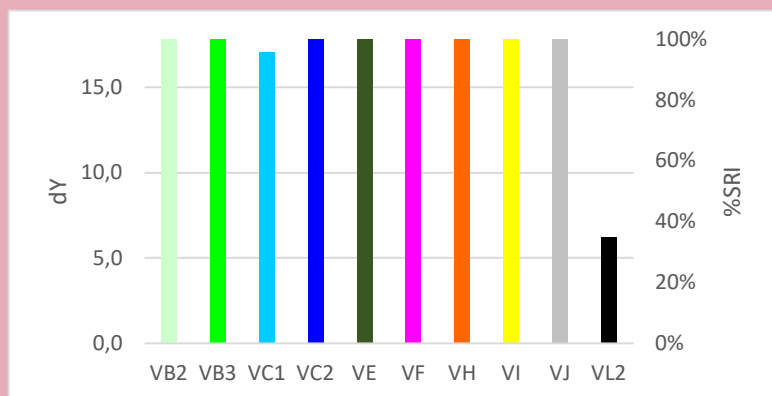
## Minced meat



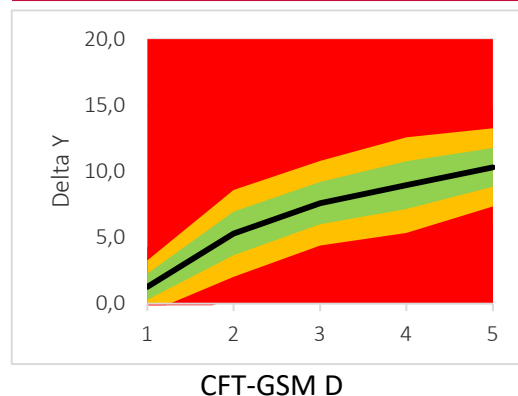
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-91	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-91	Technical Porcelain (DT H)	120 x 100 x 1	87,2

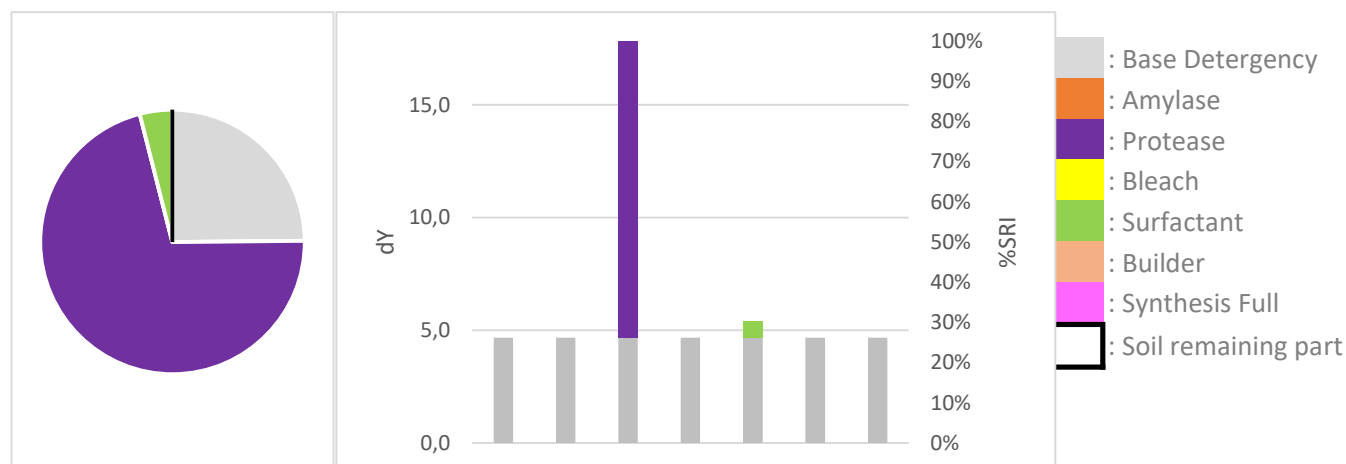
### Autodish detergent comparison



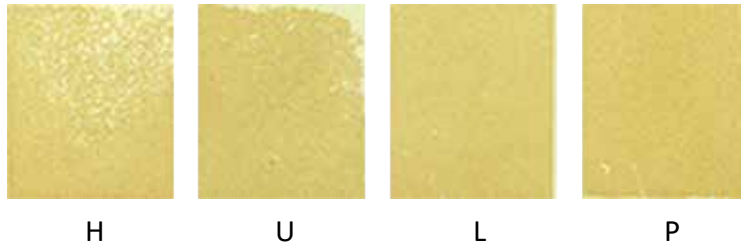
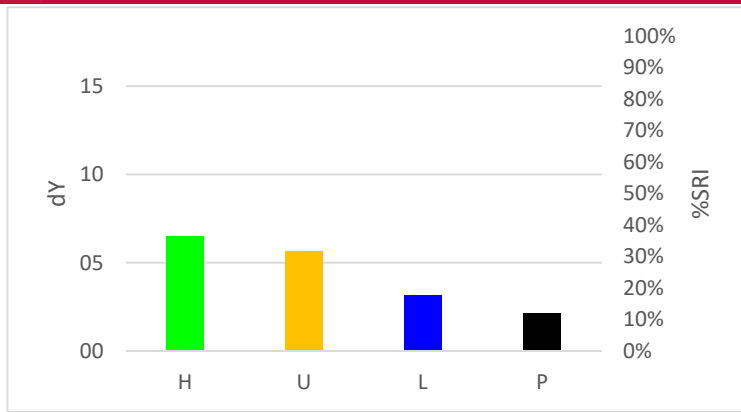
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



**Discriminative Power:**



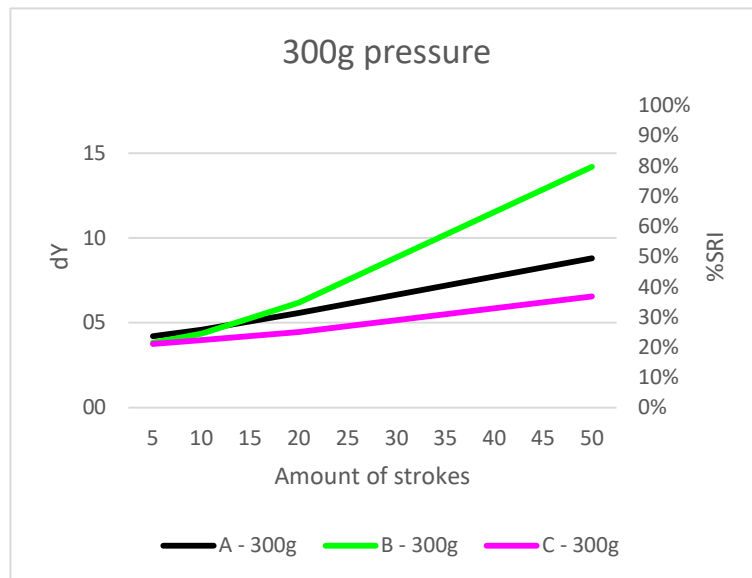
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



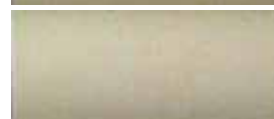
Example soil removal pictures



1 stroke



10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles:

50x

Amount of pressure:

300g

Speed cycles/min:

20

Length in mm:

200

Utensil:

CFT sponge (soft)

Application method:

ABS

# DM-92

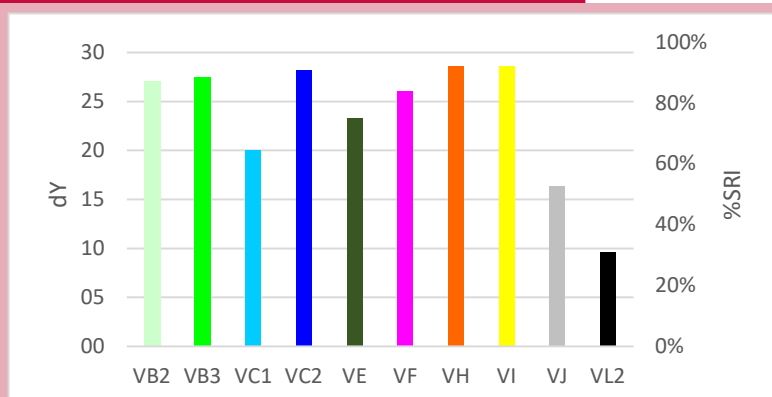
## Minced meat, double soil load



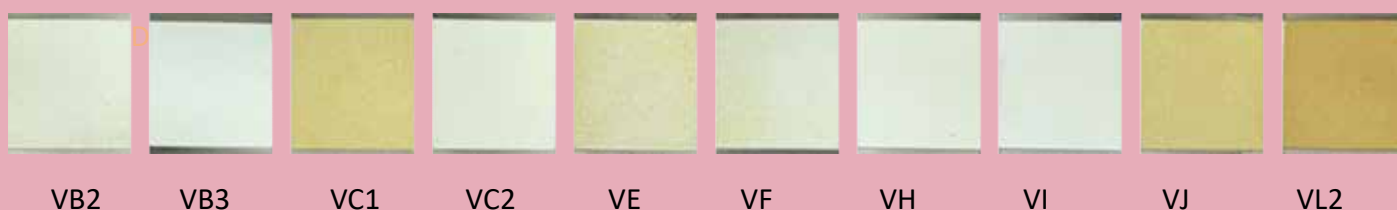
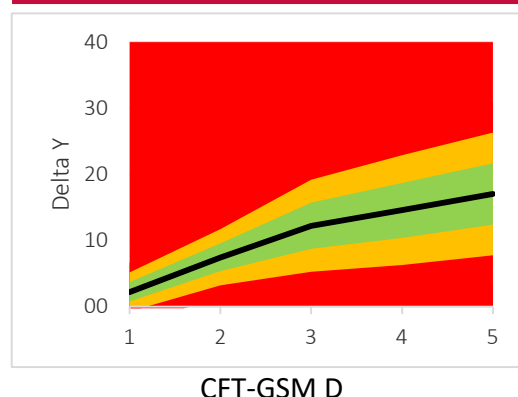
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-92	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-92	Technical Porcelain (DT H)	120 x 100 x 1	87,2

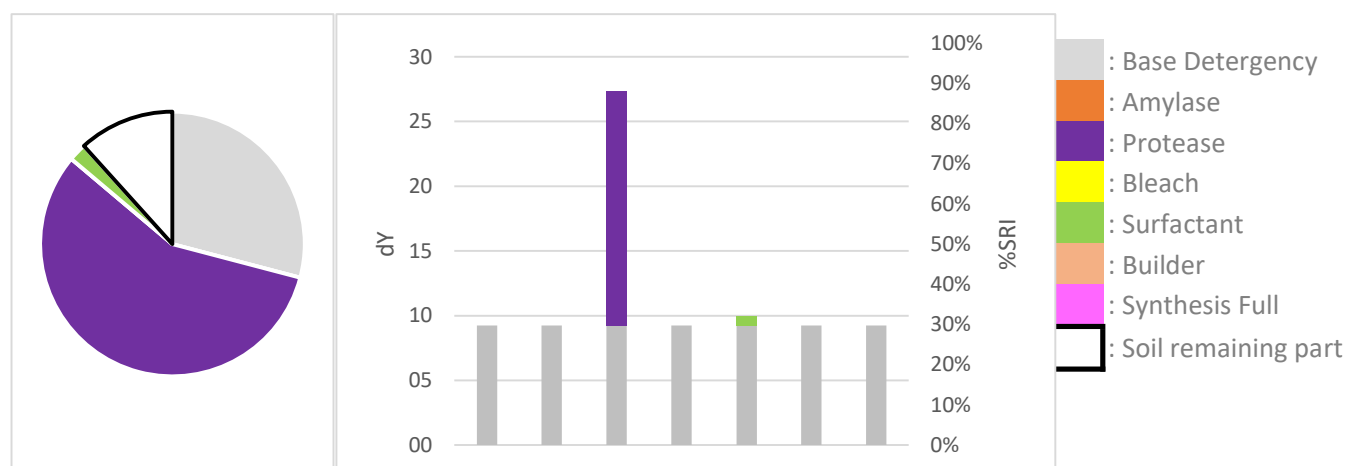
### Autodish detergent comparison



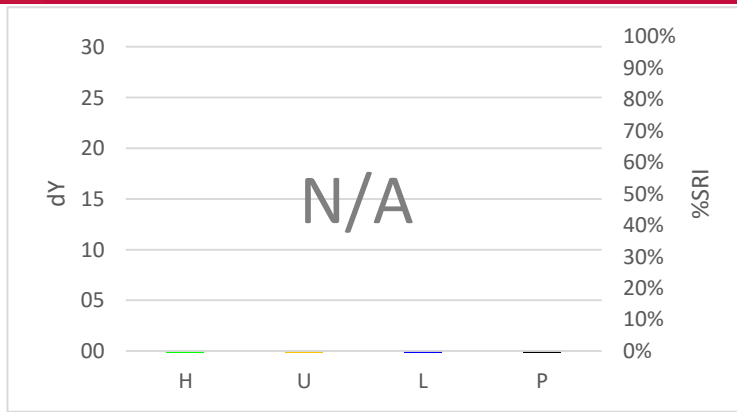
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



DM-92

N/A N/A N/A N/A

H

U

L

P

Discriminative Power:



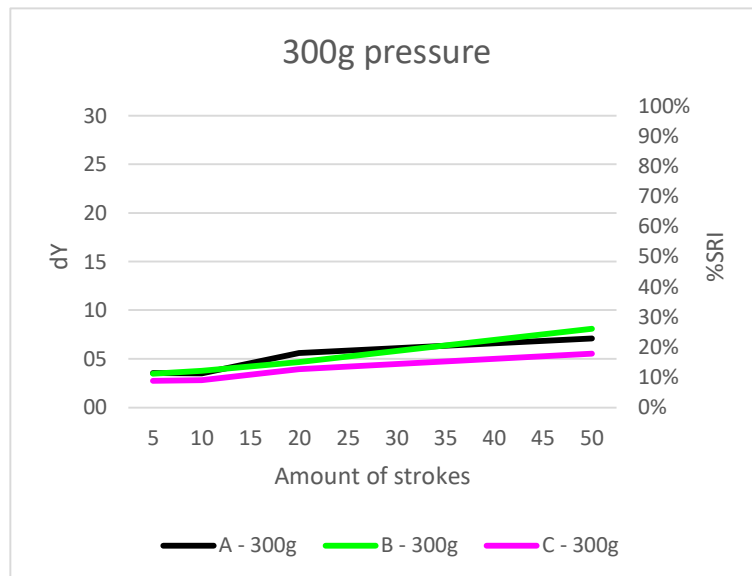
Reproducibility Ratio:



Reliability Ratio:



## Hand dishwash detergent comparison



Discriminative Power:



Reproducibility Ratio:



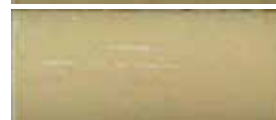
Reliability Ratio:



Example soil removal pictures



1 stroke



10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-93

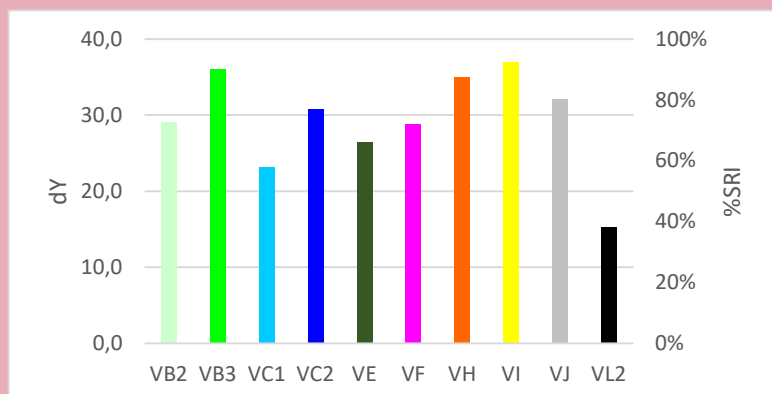
## Minced meat, triple soil load



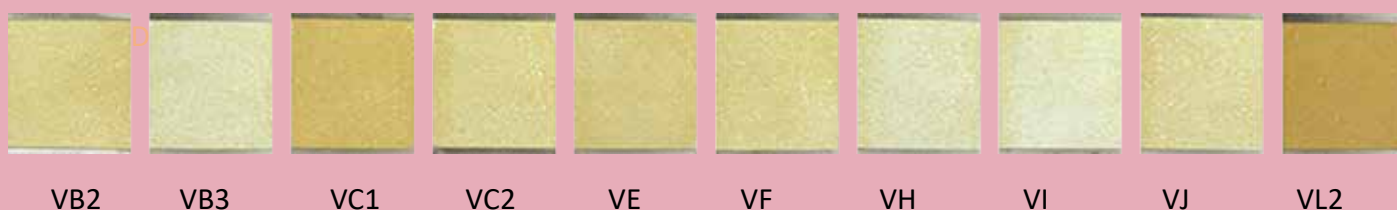
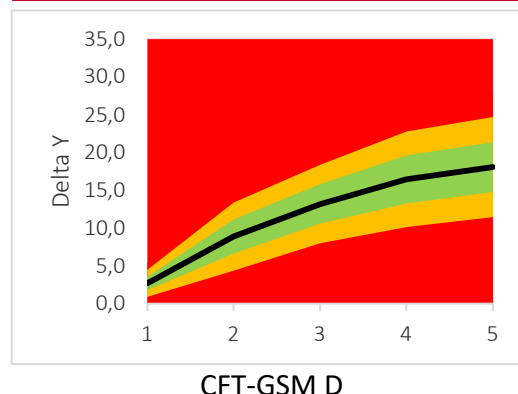
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DM-93	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-93	Technical Porcelain (DT H)	120 x 100 x 1	87,2

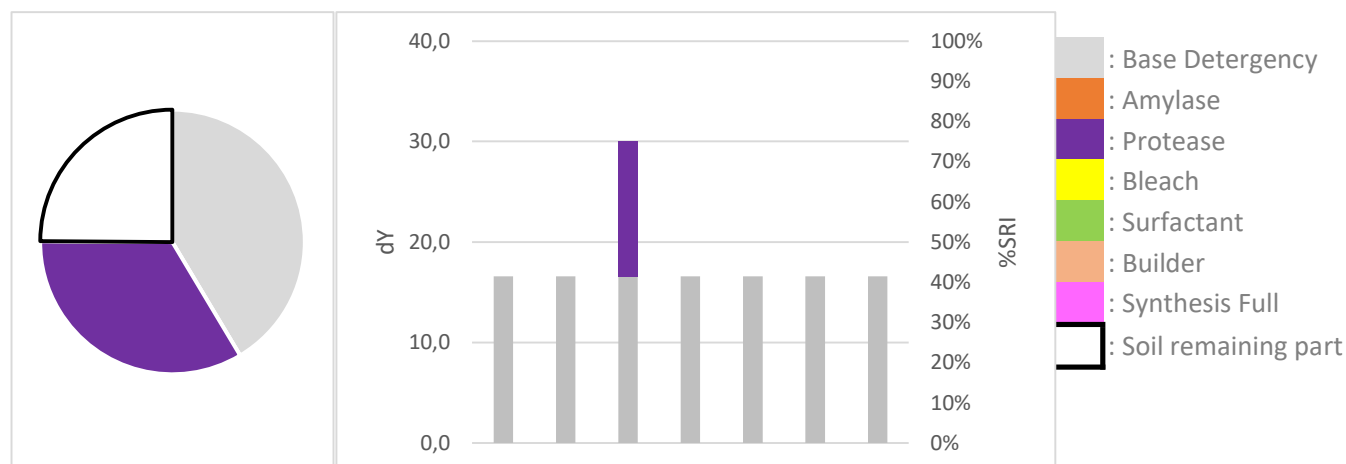
### Autodish detergent comparison



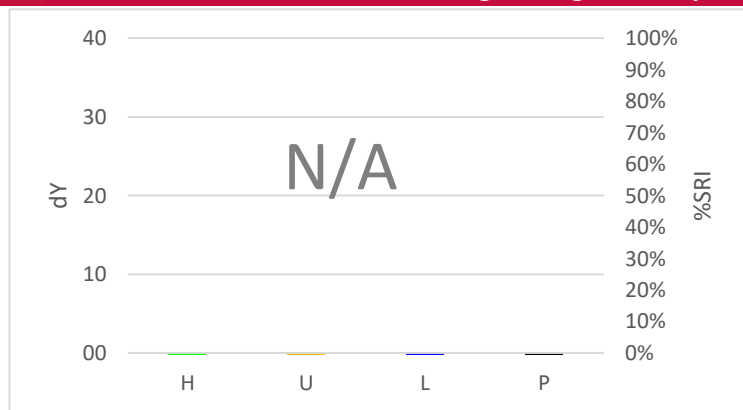
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



DM-93

N/A N/A N/A N/A

H

U

L

P

Discriminative Power:



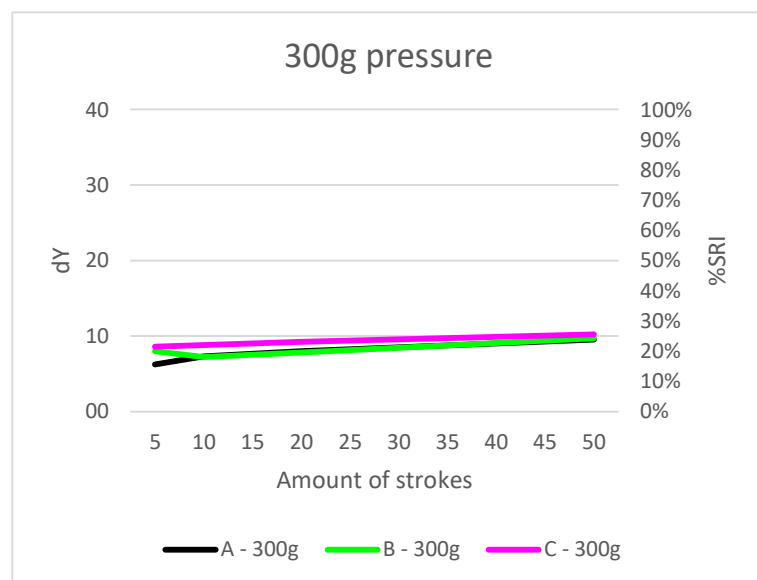
Reproducibility Ratio:



Reliability Ratio:



## Hand dishwash detergent comparison



Discriminative Power:



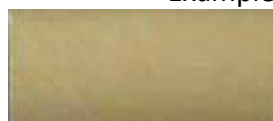
Reproducibility Ratio:



Reliability Ratio:



Example soil removal pictures



1 stroke



10 strokes



20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 10x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DS-94

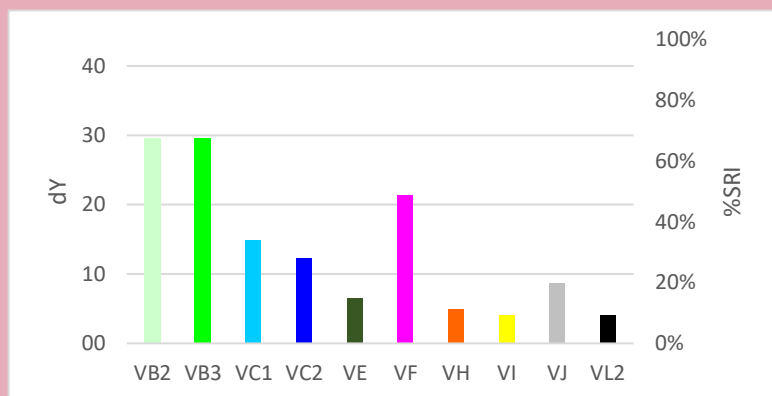
## Vegan meat, 'Beyond Meat'



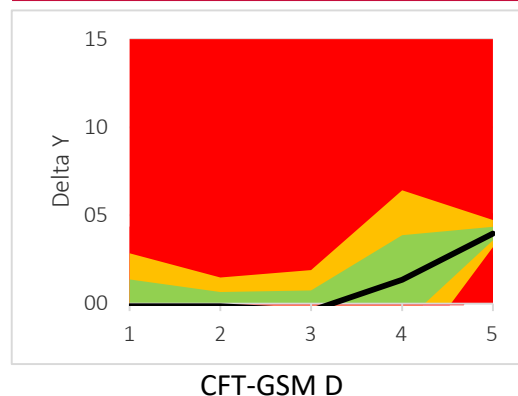
Discriminative Power: ★★★★★  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★★★★

Order code:	Substrate:	Dimensions in mm	Yu:
DT-94	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-94	Steel plate, smooth (DS H)	120 x 100 x 1	44,4

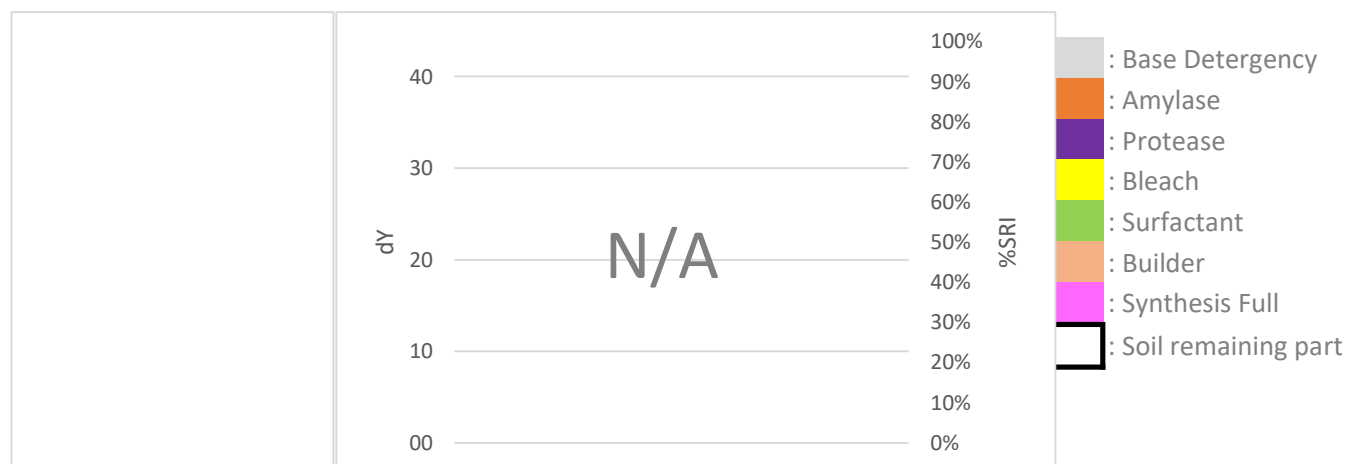
### Autodish detergent comparison



### Quality Control

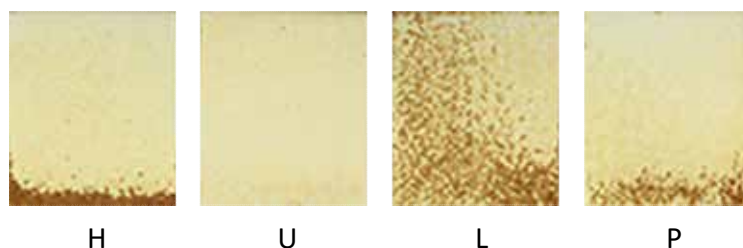
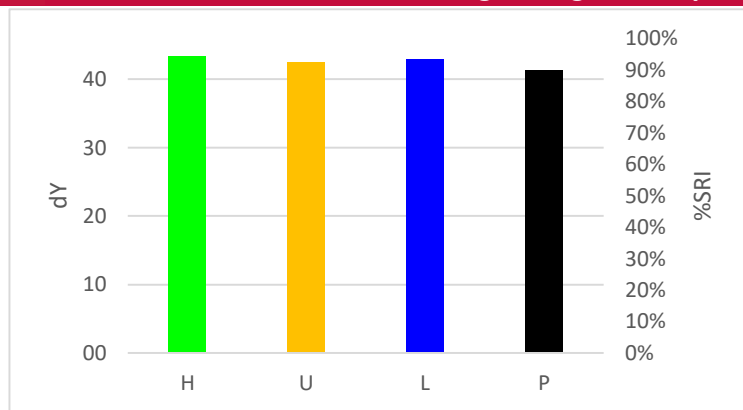


### Autodish detergent component response





## Professional cleaning detergent comparison



# DT-94

**Discriminative Power:**



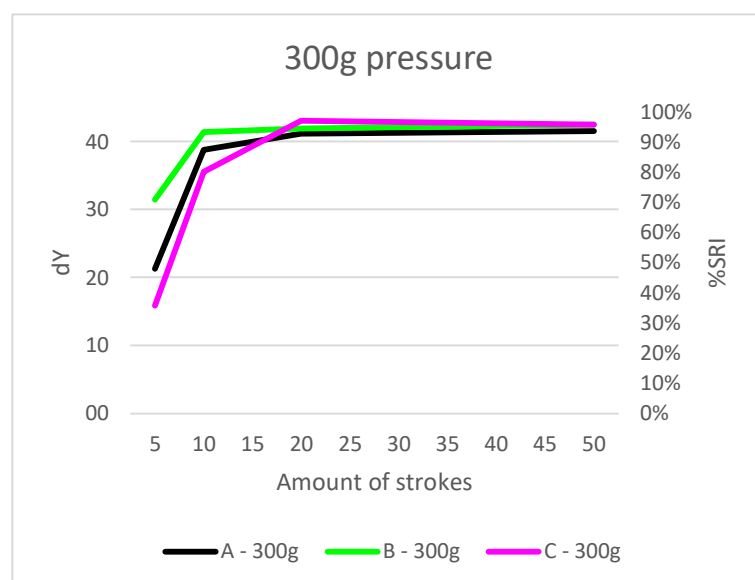
**Reproducibility Ratio:**



**Reliability Ratio:**



## Hand dishwash detergent comparison



**Discriminative Power:**



**Reproducibility Ratio:**



**Reliability Ratio:**



Example soil removal pictures



1 stroke



10 strokes



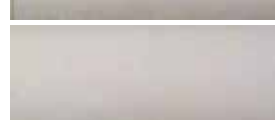
20 strokes



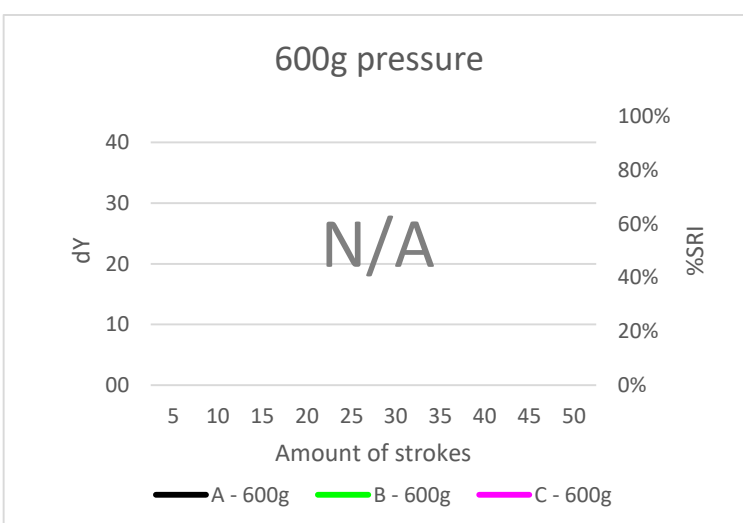
30 strokes



40 strokes



50 strokes



### Recommended TQC testing conditions

Amount of cycles: 5x

Amount of pressure: 300g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DM-96

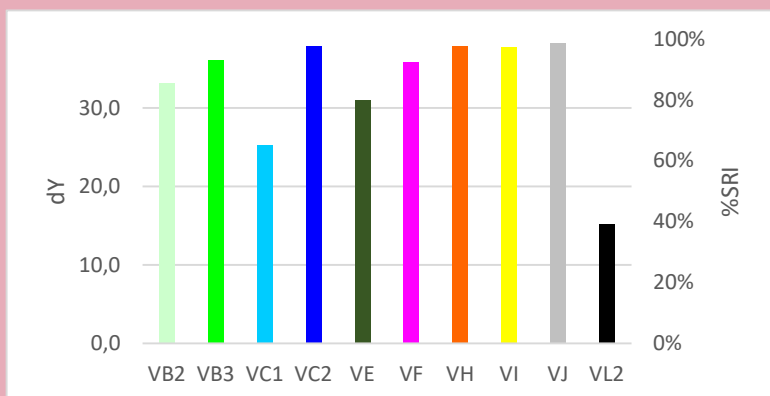
## Minced meat with fat, triple soil load



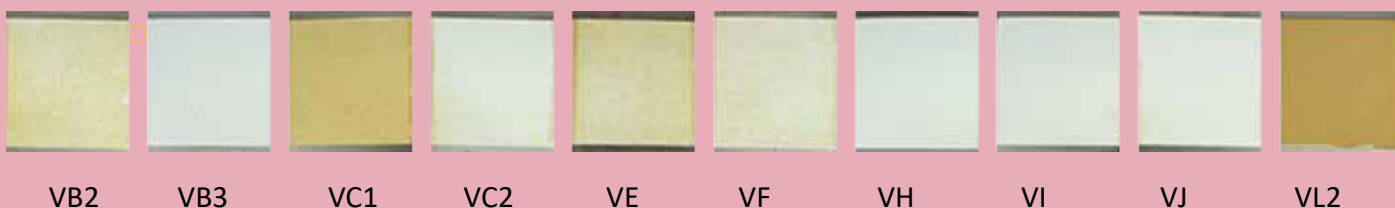
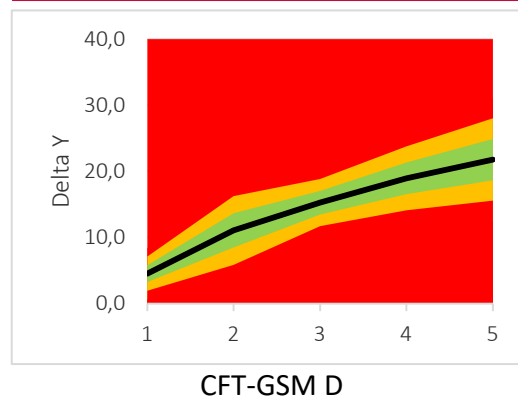
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★★★★  
 Reliability Ratio: ★★★★★  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DM-96	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-96	Technical Porcelain (DT H)	120 x 100 x 1	87,2

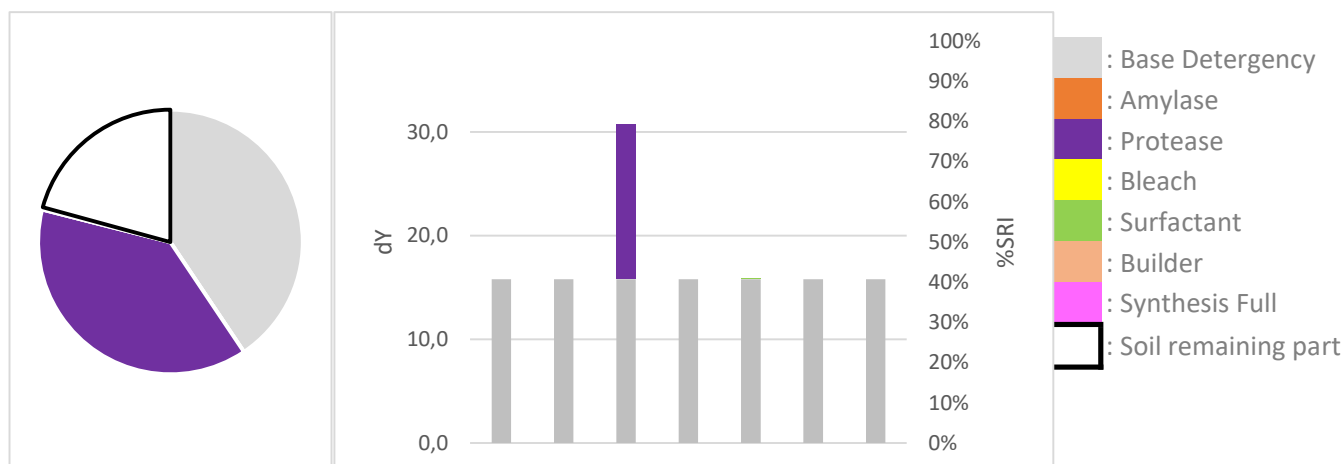
### Autodish detergent comparison



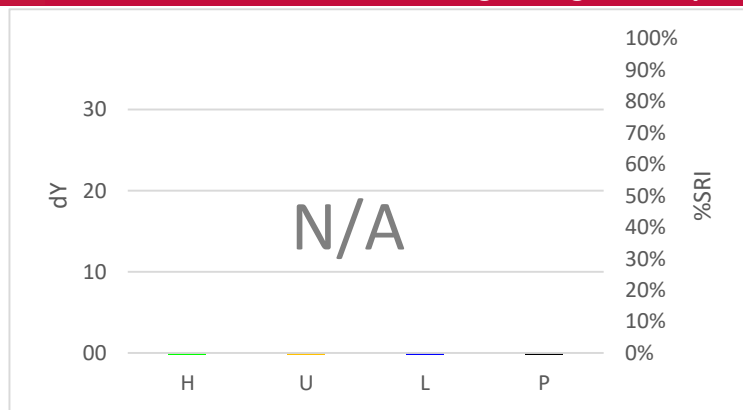
### Quality Control



### Autodish detergent component response



## Professional cleaning detergent comparison



DM-96

N/A H N/A U N/A L N/A P

Discriminative Power:



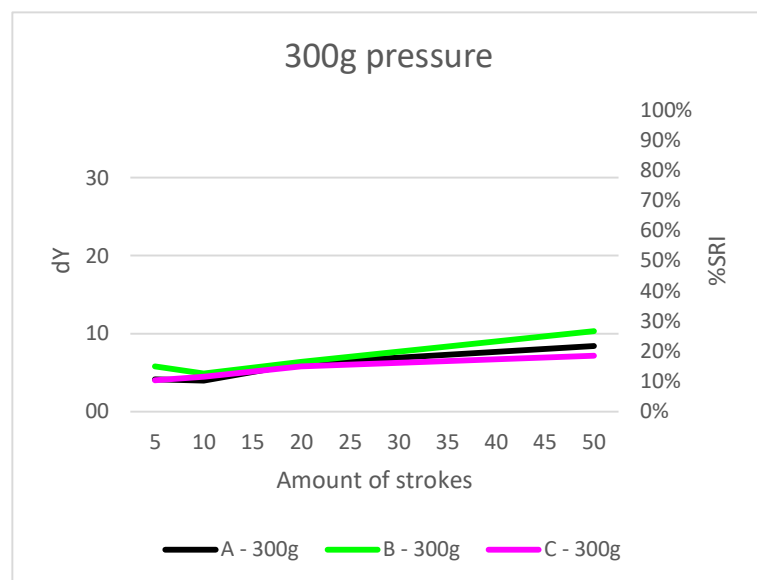
Reproducibility Ratio:



Reliability Ratio:



## Hand dishwash detergent comparison



Discriminative Power:



Reproducibility Ratio:



Reliability Ratio:



Example soil removal pictures



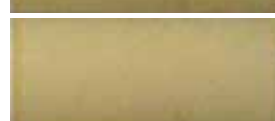
1 stroke



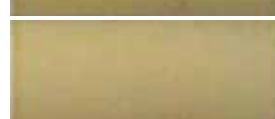
10 strokes



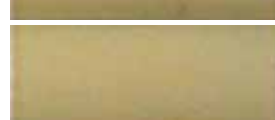
20 strokes



30 strokes



40 strokes



50 strokes

### Recommended TQC testing conditions

Amount of cycles: 50x

Amount of pressure: 600g

Speed cycles/min: 20

Length in mm: 200

Utensil: CFT sponge (soft)

Application method: ABS

# DS-105

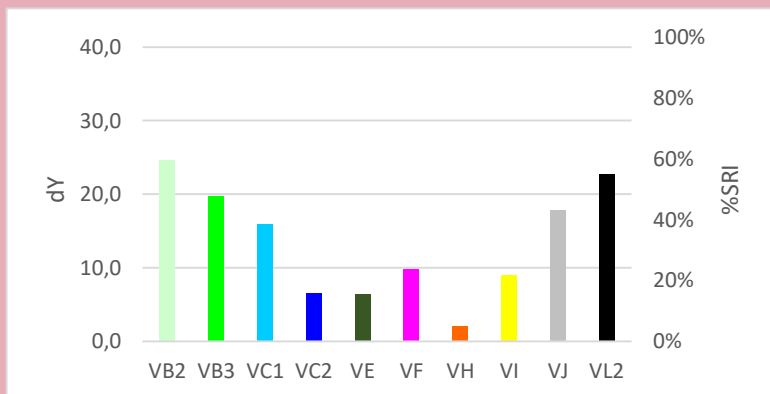
## Heavily burnt on pasta and cheese



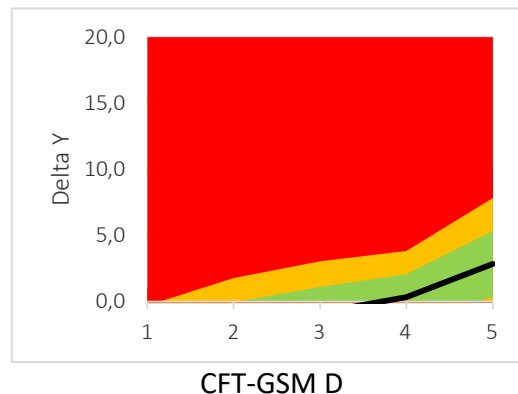
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★☆☆☆☆  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DT-105	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-105	Steel plate, grated (DS I)	120 x 100 x 1	47,4

### Autodish detergent comparison



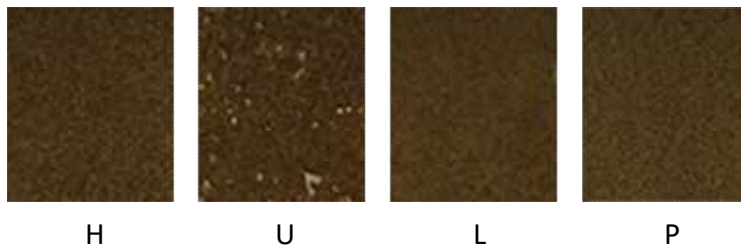
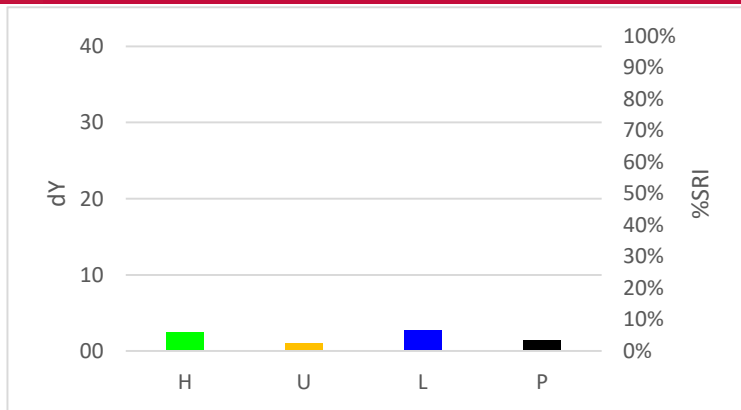
### Quality Control



### Autodish detergent component response

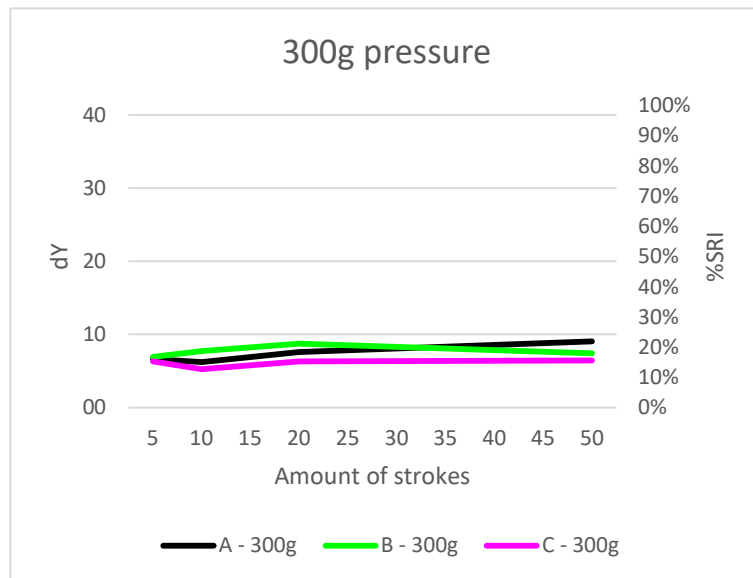


## Professional cleaning detergent comparison



Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆

## Hand dishwash detergent comparison



Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆

### Example soil removal pictures



1 stroke

10 strokes

20 strokes

30 strokes

40 strokes

50 strokes

### Recommended TQC testing conditions

Amount of cycles: 50x  
 Amount of pressure: 600g  
 Speed cycles/min: 20  
 Length in mm: 200  
 Utensil: CFT sponge (soft)  
 Application method: ABS

# DS-106

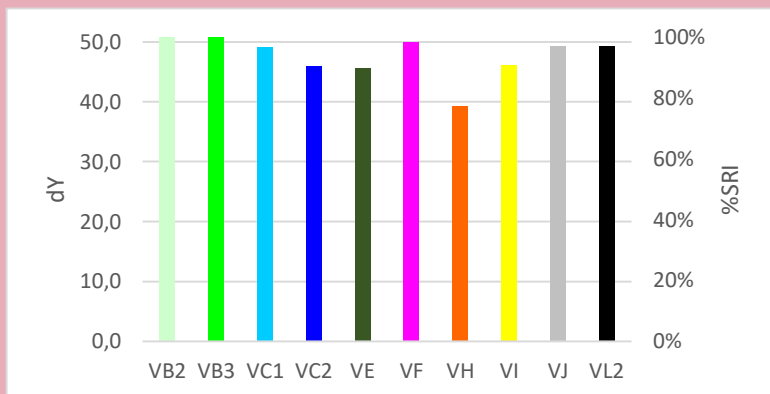
## Heavily burnt on cheese sauce



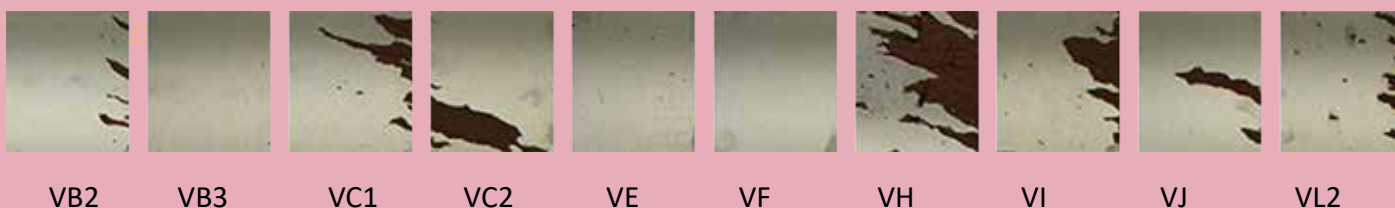
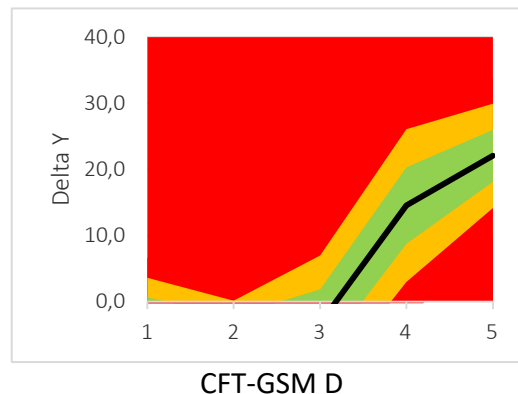
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆  
 Popularity: ★★☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DT-106	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-106	Steel plate, smooth (DS H)	120 x 100 x 1	44,4

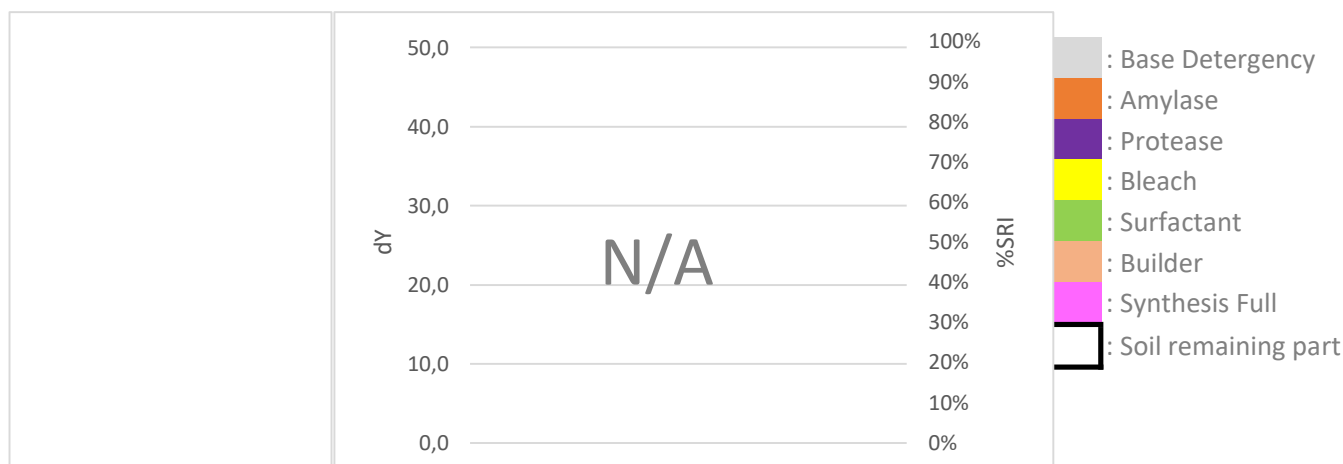
### Autodish detergent comparison



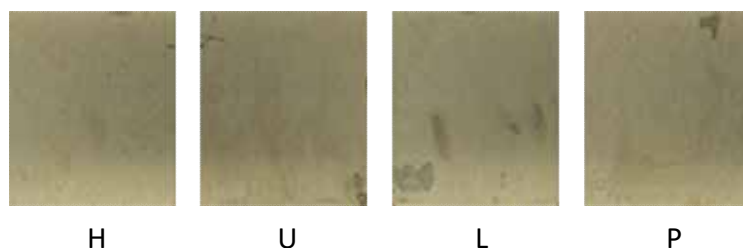
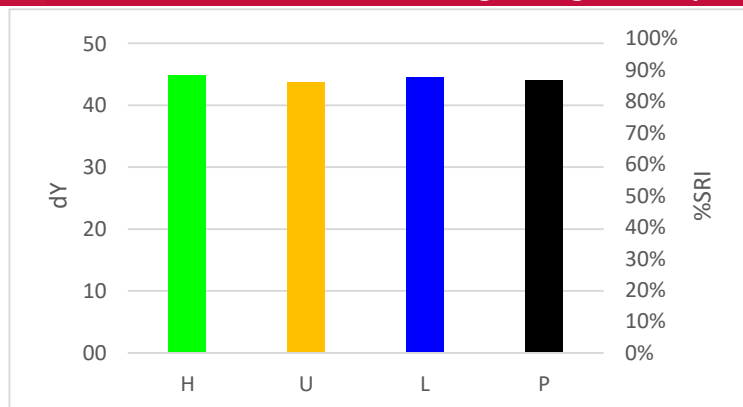
### Quality Control



### Autodish detergent component response



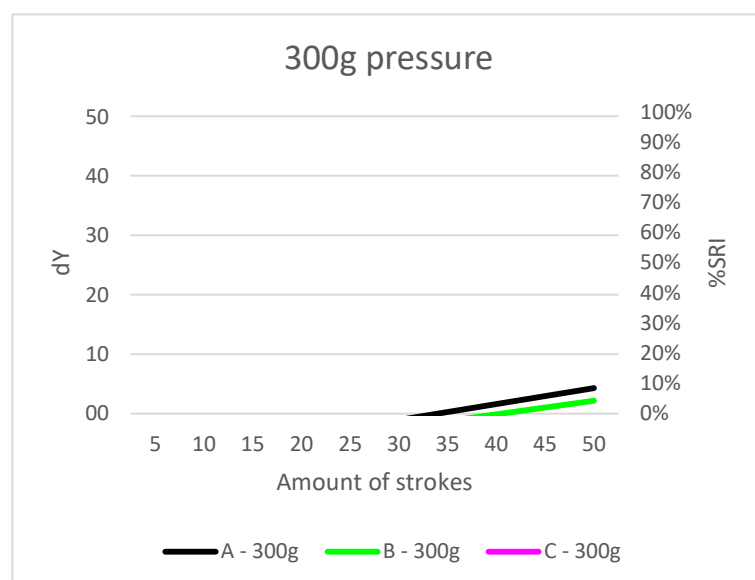
## Professional cleaning detergent comparison



# DS-106

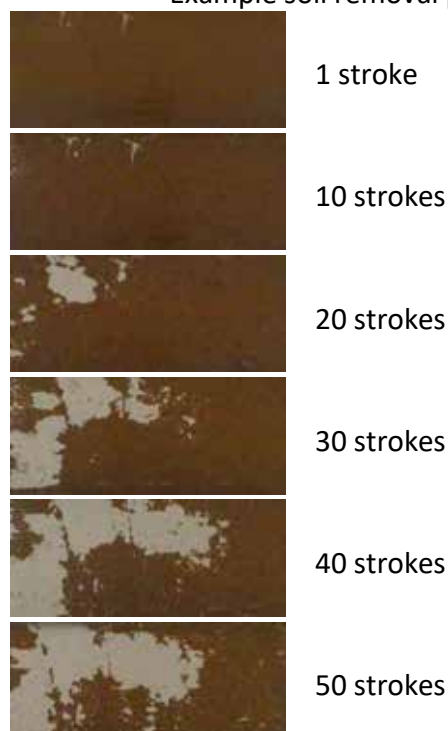
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆

## Hand dishwash detergent comparison



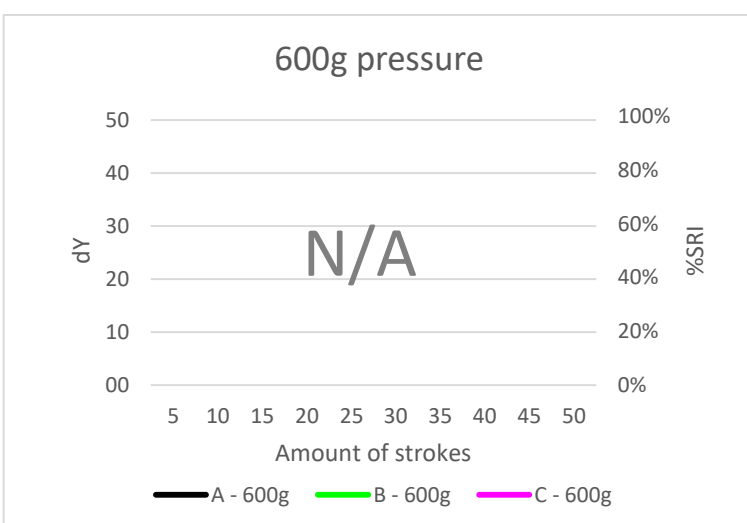
Discriminative Power: ★☆☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★★☆☆☆

### Example soil removal pictures



### Recommended TQC testing conditions

Amount of cycles: 50x  
 Amount of pressure: 300g  
 Speed cycles/min: 20  
 Length in mm: 200  
 Utensil: CFT sponge (soft)  
 Application method: ABS



# DS-146

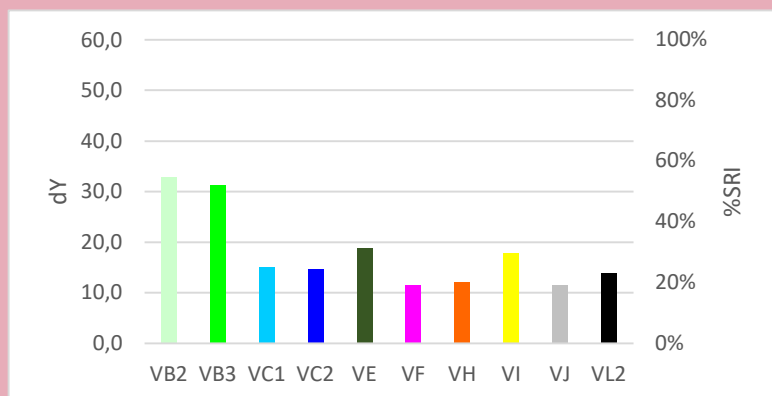
## Heavily burnt on gravy



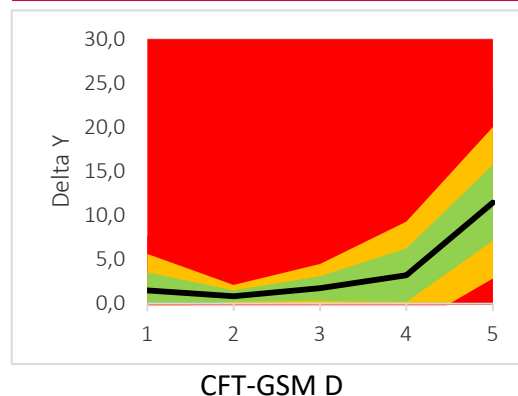
Discriminative Power: ★★☆☆☆  
 Reproducibility Ratio: ★★☆☆☆  
 Reliability Ratio: ★☆☆☆☆  
 Popularity: ★☆☆☆☆

Order code:	Substrate:	Dimensions in mm	Yu:
DT-146	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-146	Steel plate, smooth (DS H)	120 x 100 x 1	44,4

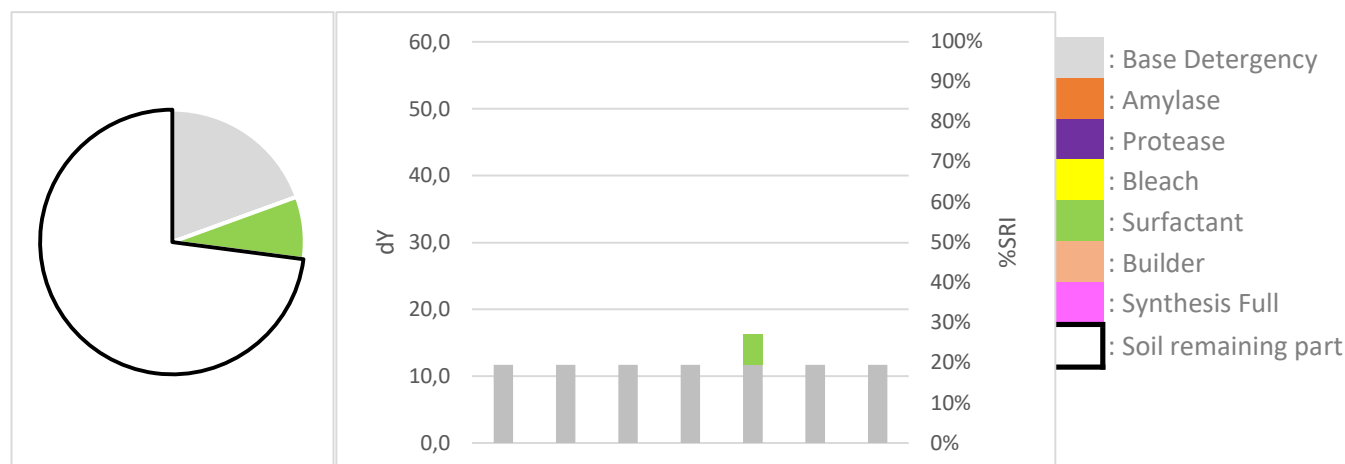
### Autodish detergent comparison



### Quality Control



### Autodish detergent component response







### Specialties

The special tiles are developed to test special detergents. For example Bathroom Cleaners, Descalers, Oven Cleaners, Car Cleaners and many more.

# DC-30

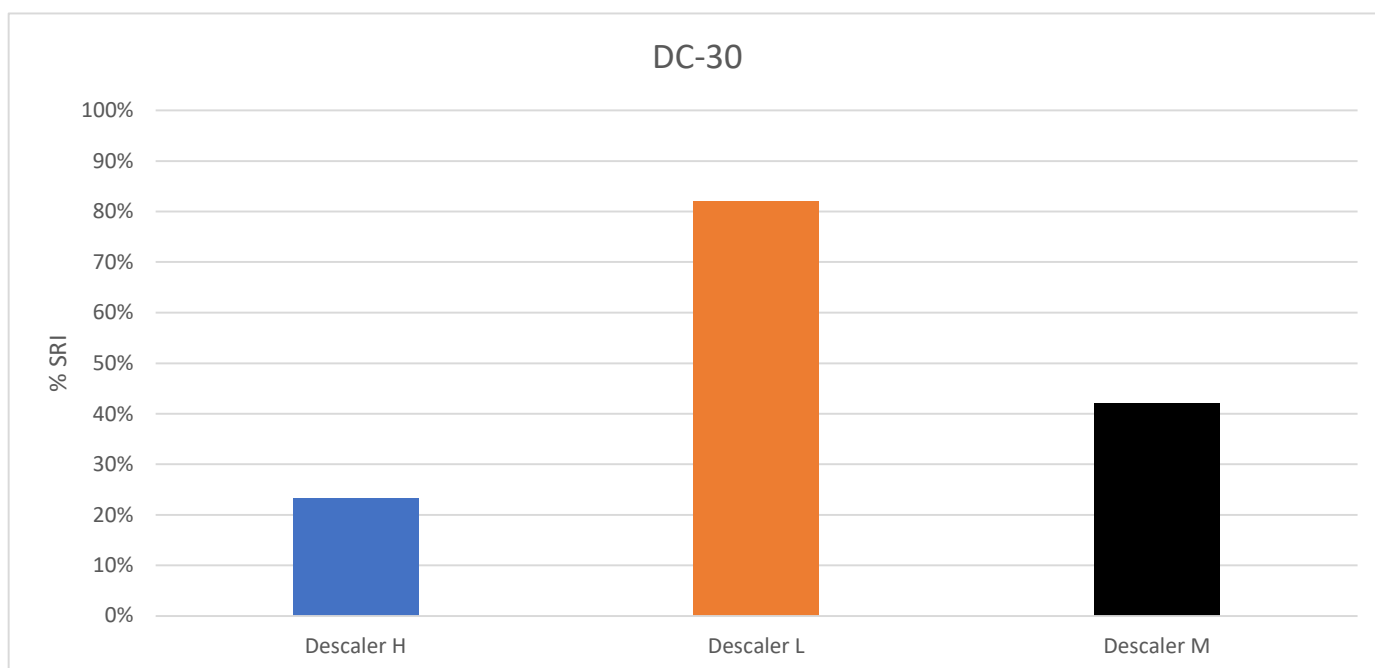
## Highly discriminative soap scum



Popularity:



Order code:	Substrate:	Dimensions in mm	Yu:
DS-30	Steel plate, smooth (DS H)	120 x 100 x 1	44,4
DG-30	Glass plate, smooth (DG H)	120 x 100 x 2	87,5
DC-30	Porcelain tile, glaze top, square, black (DC H B)	100 x 100 x 10	4,7



### Recommended TQC testing conditions

Amount of cycles:	2x
Amount of pressure:	300g
Speed cycles/min:	40
Length in mm:	200
Utensil:	CFT sponge (rough)
Application method:	AS

### Application methods

ABS	Absorption of detergent in sponge
AC	Applying detergent on cloth
AS	Applying detergent on substrate
SOAK	Soak tile in detergent solution

# DM-40

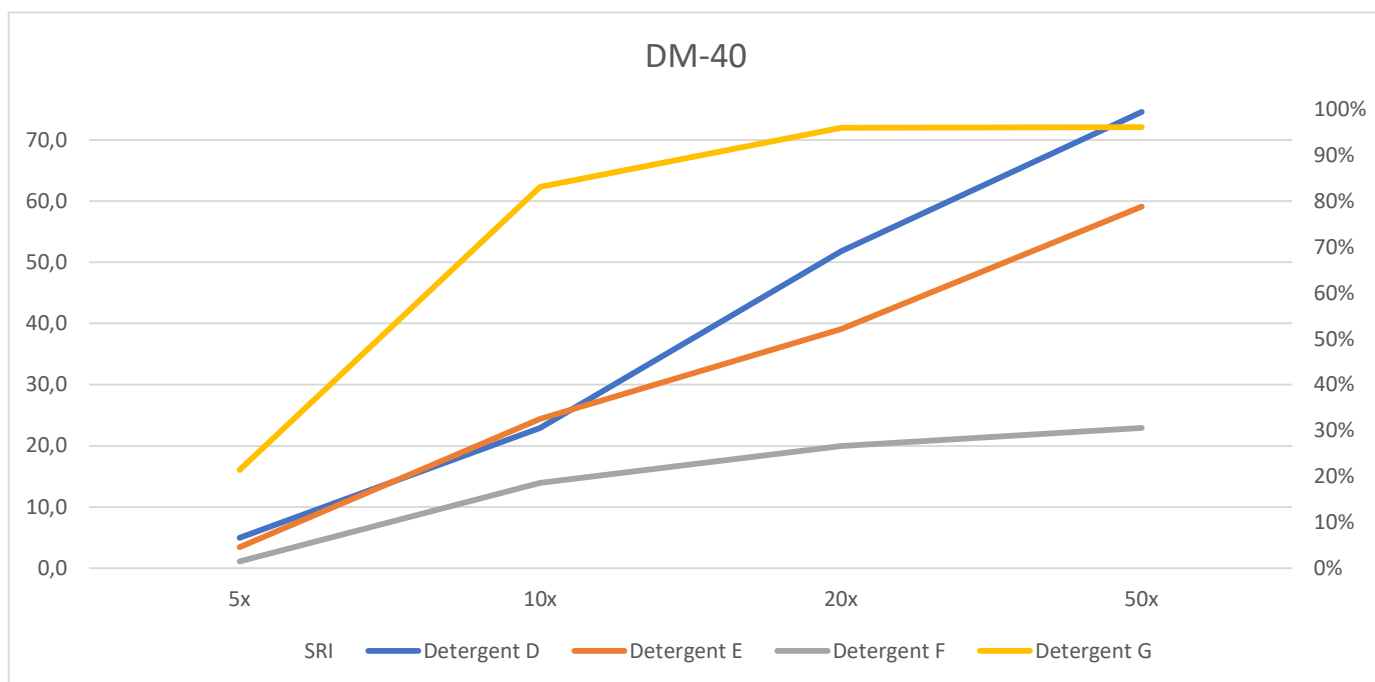
All-purpose cleaner soil  
based on IKW protocol



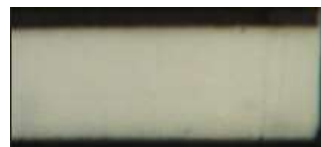
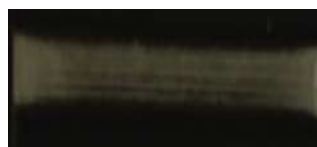
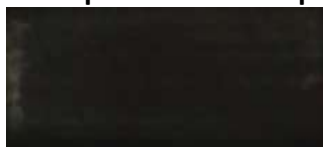
Popularity:



Order code:	Substrate:	Dimensions in mm	Yu:
DM-40	Melamine resin tile, flat top (DM H)	120 x 100 x 1,2	84,6
DT-40	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-40	Steel plate, smooth (DS H)	120 x 100 x 1	44,4



## Example soil removal pictures



5x

10x

20x

50x

### Recommended TQC testing conditions

Amount of cycles:	10
Amount of pressure:	300g
Speed cycles/min:	20
Length in mm:	200
Utensil:	CFT cloth
Application method:	AC

### Application methods

ABS	Absorption of detergent in sponge
AC	Applying detergent on cloth
AS	Applying detergent on substrate
SOAK	Soak tile in detergent solution

# DS-48

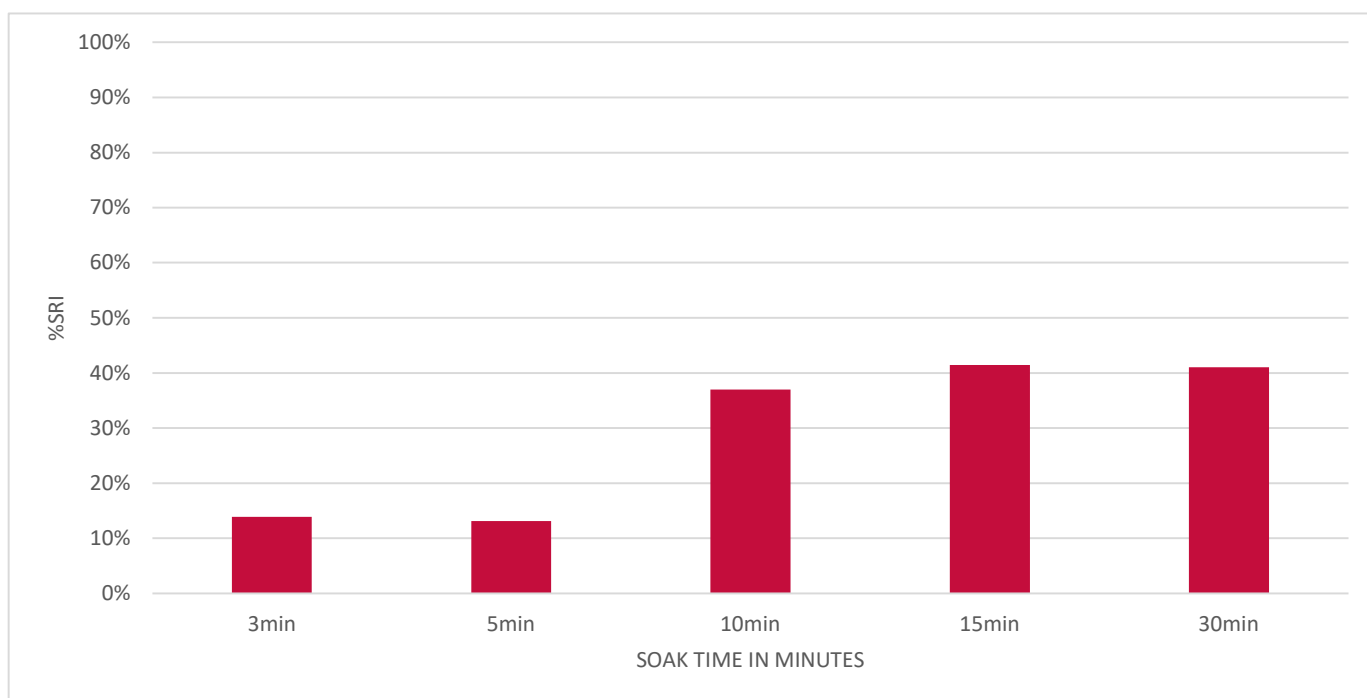
## Oven cleaner stain



Popularity:



Order code:	Substrate:	Dimensions in mm	Yu:
DT-48	Technical Porcelain (DT H)	120 x 100 x 1	87,2
DS-48	Steel plate, smooth (DS H)	120 x 100 x 1	44,4



### Example soil removal pictures



3 min



5 min



10 min



30 min

### Recommended TQC testing conditions

Amount of cycles:	4
Amount of pressure:	300g
Speed cycles/min:	40
Length in mm:	200
Utensil:	CFT Sponge (soft)
Application method:	SOAK

### Application methods

ABS	Absorption of detergent in sponge
AC	Applying detergent on cloth
AS	Applying detergent on substrate
SOAK	Soak tile in detergent solution

# DC-57

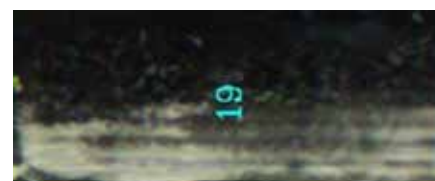
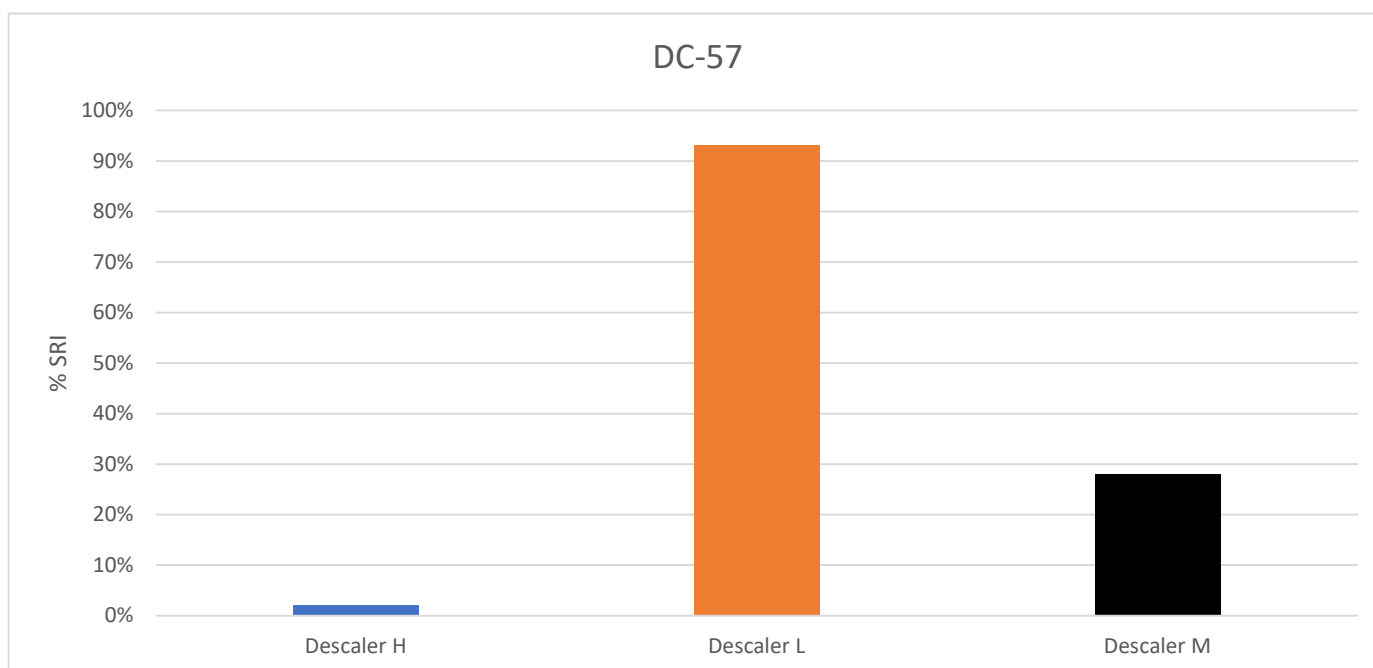
Calcium stearate, based  
on IKW recommend. for  
bathroom cleaners



Popularity:



Order code:	Substrate:	Dimensions in mm	Yu:
DC-57	Porcelain tile, glaze top, square, white (DC H)	100 x 100 x 10	82,6



## Recommended testing conditions

Amount of cycles:	25x
Amount of pressure:	300g
Speed cycles/min:	40
Length in mm:	200
Utensil:	CFT sponge (rough)
Application method:	AS

## Application methods

ABS	Absorption of detergent in sponge
AC	Applying detergent on cloth
AS	Applying detergent on substrate
SOAK	Soak tile in detergent solution



## Equipment

CFT's goal is to be a "one-stop-shop" for our customers, so offering test equipment, washing machines and measuring equipment fits well in our strategy. Because the long lasting equipment is very different from the consumable testmaterials, we offer the equipment from a separate corporate entity, CFT Equipment B.V. A different colour, but the same level of quality and service!

In the next pages you will find the equipment and accessories you need to test all the tiles in this catalogue.

## CFT Equipment

CFT offers a wide range of equipment especially available, made or developed for testing our CFT-tiles. These devices will improve accuracy during and after testing and will also save time during this time-consuming process.

### MACH 5+

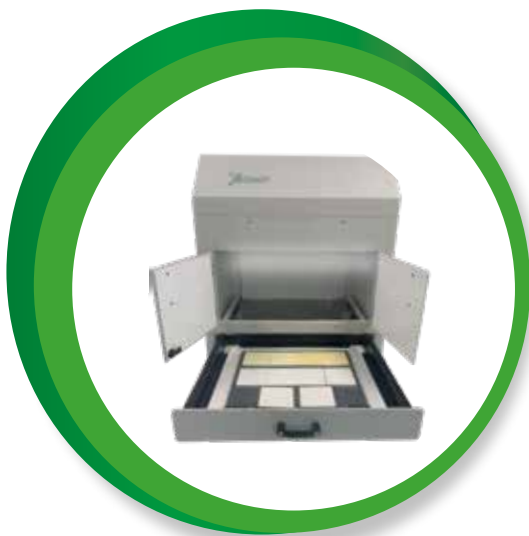
#### Colour measurement device

Multi Area Colour-measurement hardware for fast, automatic spectral measurements of multiple samples and large, inhomogenous surfaces.

The Mach 5+ is the fast and accurate solution for detergent performance measurements. Perform multiple measurements in one go on hard or soft surfaces.

#### The MACH 5+

- Fast measuring
- Enables quantification of inhomogenous areas
- Ensures fewer human errors
- Measurements are less labour-intensive
- Specially developed for detergent industry
- Easy to operate
- Saves costs & time
- Stores a picture of every measurement



Available accessoires:

#### MACH 5 34°Holder



Special 34° holder for reducing gloss on shiny surfaces measuring with MACH 5 - per piece.

#### MACH 5 Tile Bag



Knitted cotton bag to preserve MACH 5 daily calibration check tile.

### CR400/410

#### Handheld colorimeter

The CR400 is equipped with a measurement area of  $\varnothing 8\text{mm}$ . The CR410 is equipped with a larger measurement area,  $\varnothing 50\text{mm}$ . The head specially developed for measuring dishwash tiles, is detachable from the data processor.

#### CR400/410

- Measuring head alone can store up to 1.000 measurements.
- Can be powered with rechargeable batteries for reduced operating costs
- Connected to pc the head can store up to 2.000 measurements
- Large easy-to-see LCD with a built-in backlight
- Capable of displaying color-difference graphs that provide a visual representation of the color difference



Available accessoires:

#### CR-410 DM



Adapter to flatten DM-tiles while measuring with CR-410 Konica meter.

# TQC-Sheen Washability Tester

Mimics manual handdish & hard-surface cleaning movements

Designed to assess the performance of cleaning agents, the washability tester mimics manual handdish & hard-surface cleaning movements in a standardized way.

This device is fully functional in combination with ready-to-use CFT tiles.

## TQC-Sheen Washability Tester

- Four scrubbing heads
- Possibility to add weights for pressure
- Multiple speed strokes
- Pre-settings for industrial standards or your own
- Triple i operating interface
- Ability to fit 2 CFT dishwash monitors simultaneously

Available accessoires:

### EXCLUSIVE CFT-CLAMP



Clamp with adjustable bars, usable for tiles that are slightly bended.

### CFT-SPRAYING CABIN



Spraying cabin for applying detergents in hard surface cleaning tests.

### DM DRYING RACK



Drying rack for washed DM, DG DS and DP tiles. Space for 25 tiles.

### TQC DRYING RACK



Drying rack for washed DM, DG DS and DP tiles. Space for 18 tiles.

### TQC-CAMERA



Camera to capture images of the cleaning performance of the TQC-Sheen. Including suitcase for transportation.

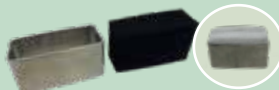
**NEW!**

### CFT- WINDOW WIPER



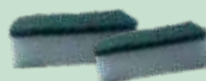
Wiper, designed for the automotive industry.

### CFT-CLOTH HOLDER



Cloth holder to use any cloth with a scrub tester - sold per 4 pcs.

### CFT-SPONGE 24x



Standardized sponge specially developed for the TQC-Sheen. Standardized height, thickness en elasticity. Available per pack of 24 pcs.

### CFT-CLOTH



Cloth used in IKW recommendation for the quality assessment of the product performance of all-purpose cleaners - 8x12 cm cloth.





## Tergotometer

### Labscale testing

Tergotometer UK model. Detergent testing in a labscale environment. Test up to 70°C with 8 different compartments.

### Tergotometer

- Test up to 70°C
- Test 8 compartments simultaneously
- Each compartment holds a max of 1 liter

Test soil removal, and optimize wash conditions (for instance temperature, water hardness, softening and foam)

Available accessoires:

#### TergoTileHolderP



Plastic Tile holder, to fix 10x12cm CFT Dishwash Tiles.



## GSL 2 Dishwashing machine

### Laboratory dishwashing machine for CFT tiles

The GSL 2 is the perfect washing machine to use in consumer realistic testing methods. The machine has 6 different wash programs.

### GSL 2

- Fully equipped with electronic controls
- Circulating air turbothermic drying
- Capacity for 12 international place settings
- All-range softener up to 70 °dH

Available accessoires:

#### DM-Testing Rack



Plastic Tile holder, to fix 10x12cm CFT Dishwash Tiles.



## Electrolux I&I Dishwashing machine

### Washing machine for industrial and institutional cleaning

The Electrolux I&I Dishwashing machine can be used in combination with the CFT tiles special developed to test detergents for professional cleaning.