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Project: -  
Factory: -  
Date of order: 11.06.2019  
Test request: Water tightness around penetrations and other details in wet room floors and walls (ETAG 022 Annex A and F)  
Material: Watertight covering kit for wet room floors and walls  
**a) FRESCOLORI PURAMENTE**  
Number of samples: 1 set  
Sampling: -  
Sample delivery date: 13 May 2019  
Test duration: 13 May 2019 – 10 September 2019

Greven, 10 September 2019

  
i.V. Dr. Ing. Melanie Strutz  
(Deputy head of test laboratory)



  
i.A. Alexander Kriz, B. Sc.  
(staff of test laboratory)

Test results apply exclusively to the specimen submitted. Without written permission of the testing laboratory it is not allowed to publish parts of the report.

a) declaration by customer

Geschäftsführer: Prof. Dr. Roland Hüttl

Amtsgericht Hamburg, HRB 130568, St.Nr.: 46/736/03268





## 1. Water tightness around penetrations and other details in wet room floors and walls according to ETAG 022 Annex A and F

Table 1: Description of the system

Components	Declaration by customer
Liquid membrane	Frescolori Sinetti I and Frescolori Sinetti II
Nonwoven	Kobau Spachtelvlies
2K-Coating	Frescolori Caramor 5W Frescolori Caramor 3W Frescolori 2K-EP-PUR
Primer	Frescolori 2K-EP
Wearing surface	Frescolori 2K-SM
Sealing tape	Frescolori sealing tape 120
Inside corner	Frescolori inside corner
Outside corner	Frescolori outside corner
Collars	Frescolori collar 140 Frescolori collar 165 Frescolori collar 240
Pipe penetration	HT pipe DN 110 (PP) HT pipe DN 50 (PP)
Drain	point drain

### Processing sequence for the preparation of the box according to annex A

#### Monday (13.05.2019):

1. First layer of the liquid membrane Frescolori Sinetti I+II was applied. Inside corners, outside corner, sealing tape and the drain collars (Frescolori Manschette 240) were also worked up within the first layer. Application was performed with a roller. Additionally the pipe penetrations were sealed with Frescolori Manschette 160 and 240 and Frescolori Sinetti I+II.
2. Application of the nonwoven in the first layer of Frescolori Sinetti I+II with a roller and a trowel.
3. Application of the second layer Frescolori Sinetti I+II with a roller and a trowel. All components were covered.

#### Tuesday (14.05.2019)

4. Application of the first layer Frescolori Caramor 5W mixed with 10% Frescolori 2K-EP PUR.
5. Application of the second layer Frescolori Caramor 3W mixed with 5% Frescolori 2K-EP PUR.

#### Wednesday (15.05.2019)

6. Fine sanding the surface.
7. Application of the primer Frescolori 2K-EP (complete saturation).

#### Thursday (16.05.2019)

8. Application of the wearing surface with Frescolori 2K-SM (2 layers).

Note:

2K-EP-PUR mixing ratio: A:B = 2:1  
 2K-EP mixing ratio: A:B = 2,8:1  
 2K-SM mixing ratio: A:B = 5:1



## Processing sequence for the preparation of the samples according to annex F

### Monday (13.05.2019)

1. Frescolori Manschette 140 (140mm x 140mm; diameter 16mm) were bonded to both specimen with Sinetti I+II and covered with Kobau Spachtelvlies and Frescolori Sinnetti I+II (applied with a roller and trowel).
2. The nonwoven was fully covered with a second layer of Frescolori Sinetti I+II.

### Tuesday (14.05.2019)

3. Application of the first layer Frescolori Caramor 5W mixed with 10% Frescolori 2K-EP PUR.
4. Application of the second layer Frescolori Caramor 3W mixed with 5% Frescolori 2K-EP PUR.

### Wednesday (15.05.2019)

5. Fine sanding the surface.
6. Both specimen were primed with Frescolori 2K-EP (complete saturation).

### Thursday (16.05.2019)

7. Both specimen were covered with Frescolori 2K-SM (2 layers).

## Test procedure and results

Table 2: Test procedure and results of annex A

Action	Date	Watertight ?
Fill the box with water (10 cm) for 24 hours	27.05.2019	yes
Dynamic load test (sand bag 30 kg, 45 cm height)	28.05.2019	yes
Fill the box with water (10 cm) for 24 hours	31.05.2019	yes
Start 100 cycles alternatingly flush with 90 °C and 10 °C tempered water (6,6 h.)	31.05.2019	yes
Start 1500 cycles of exposure to spray water of alternatingly 60 °C and 10 °C (100h)	01.06.2019	yes
2nd day visual check	02.06.2019	yes
3rd day visual check	03.06.2019	yes
4th day visual check	04.06.2019	yes
5th day visual check	05.06.2019	yes
Fill the box with water (10 cm) for 7 days	06.06.2019	yes
2nd day visual check	06.06.2019	yes
3rd day visual check	07.06.2019	yes
4th day visual check	08.06.2019	yes
5th day visual check	09.06.2019	yes
6th day visual check	10.06.2019	yes
7th day visual check, end of the test / end of exposure to stress	11.06.2019	yes
End of the test / end of exposure to stress checking the humidification of the underground	12.06.2019	yes

**The system *FRESCOLORI PURAMENTE* has passed the test and is watertight.**



Table 3: Test procedure and results of annex F

Action	Date	Watertight?
Start 1500 cycles of exposure to spray water of alternatingly 60 °C and 10 °C	27.05.2019	yes
2nd day visual check	28.05.2019	yes
3rd day visual check	29.05.2019	yes
4th day visual check	30.05.2019	yes
5th day visual check	31.05.2019	yes
Start dynamic motion (24 hours)	31.05.2019	yes
Start 1500 cycles of exposure to spray water of alternatingly 60 °C and 10 °C	01.06.2019	yes
2nd day visual check	02.06.2019	yes
3rd day visual check	03.06.2019	yes
4th day visual check	04.06.2019	yes
5th day visual check, end of the test; opening the system and checking the humidification of the substrate	05.06.2019	yes

**The system *FRESCOLORI PURAMENTE* has passed the test and is watertight.**

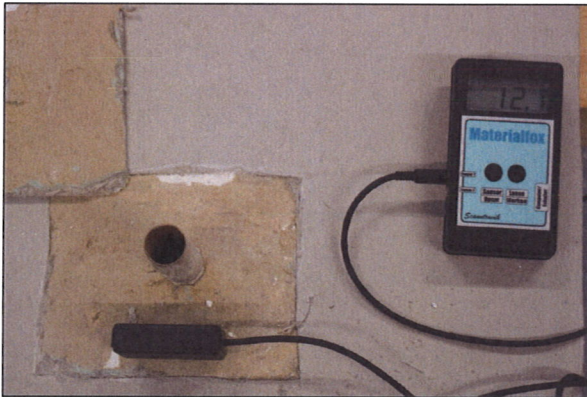


image 1: opening the sealing system after the test (annex F); checking the humidification of the substrate

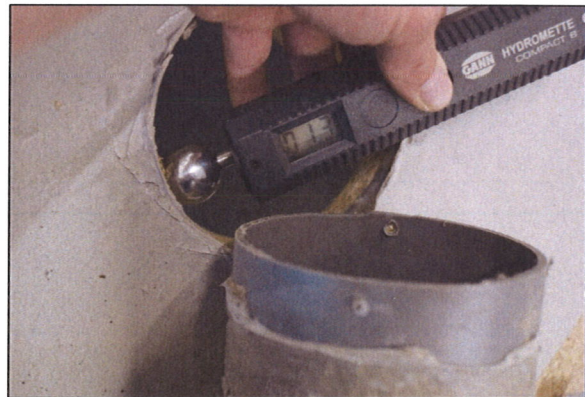


image 2: opening the sealing system after the test (annex A); checking the humidification in the area of the pipe penetration