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Test Report No. 2.1/24602/0957.0.3-2015e

General

Issued: 01 September 2016

Order by: **Proline Systems GmbH**
Kratzenburger Landstraße 3
56154 Boppard
Germany

Material: Decapling mat made of an polymer protected glass nonwoven (white) bottomside and a fibreglass fabric topside (black)
PROSECUREfibretec
(declaration by customer)

Decapling mat made of an nonwoven bottomside (white), a glass grid texture in the middle (blue) and HDPE-grid rods (blue) topside
Blanke • PERMAT
(declaration by customer)

Order date: 06 October 2015

Samples : 06 October 2015

Tests:

1. Determination of the load at a defined static deflection (L/360) and until failure

The results apply exclusively to the specimens submitted
The date of testing is reported on the enclosed enclosure/-es.
Results are reported to the accuracy given in the standards. In statistical evaluation, the measured accuracy is taken.

This test report contains 3 pages
It may not be published in parts.

1. General

The test samples were made by the customer in the laboratory of KIWA GmbH - TBU in Greven.
The structural load should generate a maximum deflection of L/360 of the sample.
Afterwards, the sample is loaded until visible damage in the ceramic.

1.1. Description of the system

A approx 2 cm steel plate (500 mm x 500 mm) and 2 steal beams were used as underground.
The setup of the samples is shown in table 1.

Tab.1: Sample setup

setup (from bottom to top)	material	mix ratio	additional information
underground	wooden panel (21 mm)	-	-
primer	Sopro HPS 673	undiluted Dispersion	applied by a roller drying time: atleast 30 min
bottom bonding (Underground - membrane)	Sopro No. 1	25 kg / 10,25 l water	floating-Buttering-procedure 4 mm toothing
sealing membrane	PROSECUREfibretec or Blanke • PERMAT	-	-
topside bonding (membrane - tile)	Sopro No. 1	25 kg / 10,25 l water	floating-Buttering-procedure 6 mm toothing
tiles	unglazed tiles (10 cm x 10 cm x 8 mm)	according to DIN EN 14411, group Bla	loaded with 2 kg to 30 seconds
jointing	Sopro Brillant PerlFuge 1-10 mm	5 kg / 1,1 l water	drying time approx. 24 h joint width 5 mm

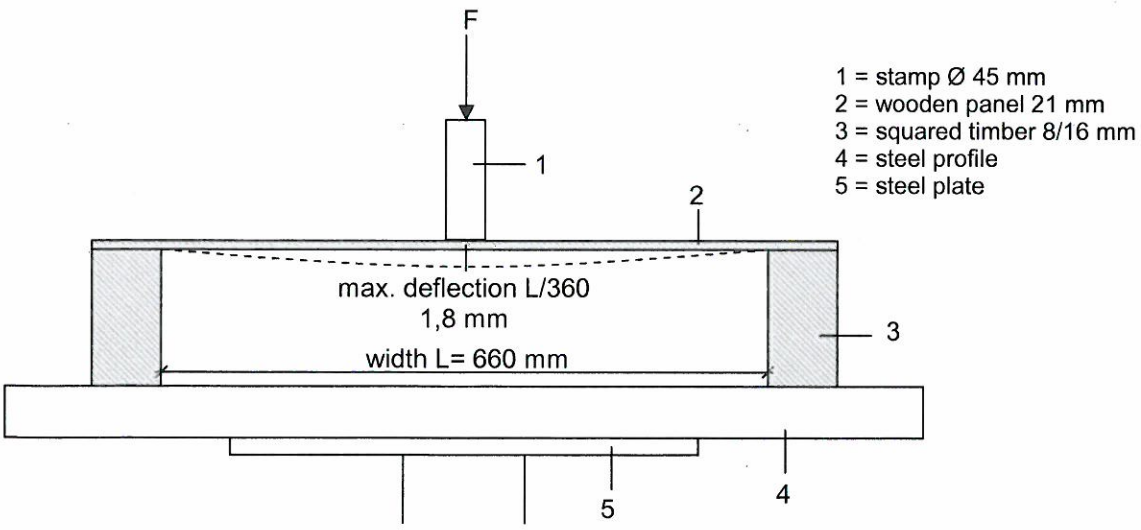

Image.1: setup of the system

1.2 Test method

The samples were put into a servo hydraulic test machine where a static load was generated. During the test, the samples were controlled to visible damage within the ceramic surface.
2 kinds of samples were made:

1. The ceramic surface is on the side of the stamp and gets an inside deflection (concave) during the static load.
2. The ceramic surface is on the other side of the stamp and gets an outside defelction (convex) during the static load.

The loading was distance controlled with an centered placed stamp (Ø 45 mm).
In order to achieve a full contact of the stamp with the sample, a nonwoven was placed below the stamp.
The deflection was controlled visually and measured with an distance measuring device (HBM WA 20) wich was placed below the sample.

1.3 Results

The load was measured for the deflection (L/360) of 1,8 mm and the required load until a visible crack on the surface of the sample.

The production of the samples was on 06. October 2015. The test was performed after a storage of 42 d at 23°C and 50% rel. humidity on the 17. November 2015.

The summary of the results is shown in table 3.

table 3: results

test No.	test setup	deflection in mm	load in kN	failure
1	PROSECUREfibretec (concave)	1,8	2,5	-
		5,5	7,5	sidewall crack at the joint
2	Blanke • PERMAT (concave)	1,8	2,4	-
		4,9	5,4	sidewall crack at the joint
3	PROSECUREfibretec (convex)	1,8	2,4	-
		4,9	4,4	sidewall crack at the joint
4	Blanke • PERMAT (convex)	1,8	1,8	-
		3,5	3,0	sidewall crack at the joint

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