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ITT of INNERSEAL

(4 appendices)

1 Assignment

Testing of INNERSEAL on concrete. Tests carried out in accordance with the procedures of EN 1504-2:2004 *Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity – Part 2: Surface protection systems for concrete.*

2 Test schedule

The test objects and scope of the test are shown in table 1. The tests were carried out between January 2012 and January 2013.

Table 1. Test schedule for treated and untreated concrete samples

Nr	Property	Method SS-EN 1504-2, table 4	Test object	
			Measurements (mm)	Number
4	Abrasion resistance	EN 5470-1	100x100x10	3 treated 3 untreated
8	Capillary absorption and permeability to water	EN 1062-3	250x120x30	3 treated
14	Impact resistance	EN ISO 6272-1	500x500x100	1 treated
15	Adhesion strength by pull-off test	EN 1542	500x500x100	1 treated
19	Depth of penetration	EN 14630	100x100x100	3 treated

The concrete and the test samples were produced and stored at CBI Swedish Institute for Concrete Technology in Borås in accordance with the directions of EN 1766.

INNERSEAL which arrived at CBI 2012-02-01 and 2012-02-09, was applied by CBI and Nicklas Schönfelder (Maynor) in accordance with the manufacturer's recommendations. The amount of finish applied was checked by weighing. CBI has no other information relating to the substance and sampling.

3 Comments

The tested product INNERSEAL meets the requirements of EN 1504-2:2004 *Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity – Part 2: Surface protection systems for concrete.*

Nr	Property	Method	Result	SS-EN 1504-2, table 4	Requirements meets
4	Abrasion resistance ¹⁾	EN 5470-1	35,4 %	At least 30 % improvement in abrasion resistance in comparison with a untreated sample	Yes
8	Capillary absorption and permeability to water	EN 1062-3	0,09 kg/m ² h ^{0,5}	$w < 0,1 \text{ kg/m}^2\text{h}^{0,5}$	Yes
14	Impact resistance ²⁾	EN ISO 6272-1	Class II	Class I: $\geq 4 \text{ Nm}$ Class II: $\geq 10 \text{ Nm}$ Class III: $\geq 20 \text{ Nm}$	Yes
15	Adhesion strength by pull-off test	EN 1542	2,4 N/mm ²	$\geq 1,0 \text{ N/mm}^2$ Horizontal without trafficking $\geq 1,5 \text{ N/mm}^2$ Horizontal with trafficking	Yes
19	Depth of penetration ³⁾	EN 14630	17 mm	$\geq 5 \text{ mm}$	Yes

- 1) Report KMpFX217237, 2012-08-27.
2) Report PX24296rev, 2012-06-01.
3) Report PX10759 C, 2012-07-12.

CBI Swedish Institute for Concrete Technology Renovation

Performed by


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Appendices

- 1 Test results
2 Report KMpFX217237
3 Report PX24296rev
4 Report FX206512

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