

Assessment Report**-TRANSLATION-**

Document number: (1201/473/18 -1) – Lau dated 11/01/2019

Client: ankox GmbH
Blumenstraße 42/1
71106 Magstadt, Germany

Order date: 29/06/2018

Order received: 29/06/2018

Subject: Inspections carried out on a waterproofing sheet with the designation "Polyfleece SX® 1000 Wall"

Test basis: see section 1

Samples received: 24/07/2018

Sampling: By client

Test material marking: see section 1

Assessment period: 04/08/2018 to 26/11/2018

This Assessment Report consists of 3 pages, including the cover sheet, as well as 1 annex.



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1 Commission and material

In its correspondence dated 29 June 2018, the company ankox GmbH, Blumenstraße 42/1 in 71106 Magstadt, Germany, commissioned the Civil Engineering Materials Testing Institute (MPA BS) in Braunschweig to carry out tests on a waterproofing sheet with the product designation

“Polyfleece SX® 1000 Wall”.

The order comprised the tests listed below:

- Test of prevention of water running behind in the event of damage after 7 or 28 days under water pressure on concrete base bodies after adhesive bonding with “2K sealing adhesive SX® 1”
- Determination of the adhesive strength after adhesive bonding with “2K sealing adhesive SX® 1”

For the implementation of the required tests, the client supplied approx. 2 running metres of the approx. 1.0 m wide roll. The product “Polyfleece SX® 1000 Wall” is a multilayer waterproofing sheet with the following structure (manufacturer’s specifications):

- PP/PES carrier fleece, white
- Swellable polymer mass
- Lamination: Polypropylene fleece, polyolefin film, polypropylene fleece

2 Testing and results

For the tests, concrete base bodies (30 cm x 20 cm x 5 cm, length x width x height) were coated on top with “2K sealing adhesive SX® 1” according to the manufacturer’s specifications (coating thickness 1 mm). The Polyfleece SX® 1000 Wall waterproofing sheet was then bedded into the fresh sealing adhesive.

To test the prevention of water running behind, after 28 days of curing, a damaged area ($\varnothing = 10$ mm) was placed in the centre of the sheet, which penetrated into the concrete substrate. The tightness test was carried out using a pressure pot ($\varnothing = 100$ mm) filled with water, which was clamped centrally over the damaged area.

To determine the adhesive strength, after 28 days, radial grooves ($\varnothing = 50$ mm) which penetrated into the concrete substrate were drilled, steel posts were glued on and these were subsequently pulled off with a haul-off speed of 100 N/sec.

The results which were determined have been compiled in table format in the annex enclosed, together with the test standards and test conditions.

This document is the translated version of Assessment Report No. (1201/473/18 -1) – dated 11/01/2019. The legally binding text is the aforementioned German Assessment Report.

Braunschweig, 11/01/2019

Head of Section

i.A.


Dr.-Ing. K. Herrmann



Engineer/Official in Charge

i.A.


N. Meyer-Laurien (Technical Employee)

Properties	Test methods	Findings
<p>Test of prevention of water running behind in the event of damage</p>	<p>Test based on DIN EN 1928 procedure A; damaged area positioned centrally under a pressure cylinder \varnothing 10 cm;</p> <p>Test on composite body Substrate: Concrete Primer: 2K sealing adhesive SX® 1 Water pressure: 120 kPa Test duration: 28 d</p> <p>Substrate: Concrete C 20/25 (28 d) Water pressure: 200 kPa Test period: 28 d</p>	<p><u>Test duration 28 d:</u></p> <p>- watertight, - no lateral water penetration into the boundary layer: tight</p> <p>- not tight</p>
<p>Adhesive strength</p>	<p>DIN 1048 Haul-off speed: 100 N/s Test on composite body Substrate: Concrete Primer: 2K sealing adhesive SX® 1</p> <p>Sample age: 28 d Sample quantity: 2</p>	<p>Adhesive strength $x = 0.28 \text{ N/mm}^2$ $k = 0.26 \text{ N/mm}^2$</p> <p>100% adhesion polymer/fleece</p>

x = mean value, k = smallest value

Table: Identified properties and characteristics of the “Polyfleece SX® 1000 Wall” waterproofing sheet