Materialprüfanstalt Hannover
Bauwesen und Produktionstechnik

Test report no. 204871

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Principal:	Tremco CPG Germany GmbH Werner-Haepp-Straße 1 92439 Bodenwöhr
Date of commission:	13.10.2020
Subject of commission:	Inspections of the driving rain tightness (DIN EN 1027) on the joint sealing membrane: „illbruck ME508 TwinAktiv VV"

The test report contains 7 pages.

To the extent that the test material is not used up, it will be disposed of after 4 weeks.
A longer retention period requires an agreement in writing.

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Niedersachsen

1. General

The company Tremco CPG Germany GmbH produces, among other things, joint sealing membranes made of non-woven fleece material. Here tested membrane "illbruck ME508 TwinAktiv VV":

"illbruck ME508 TwinAktiv VV", non-woven fleece laminate with self adhesive across the full width of the membrane and 5 mm wide, adhesive-free functional channel; colour black, strip width 70 mm; for possible alternating (W) installation, the membrane is additionally equipped with a 20 mm wide SK strip on the upper side.

2. Scope

Driving rain tightness (DIN EN 1027) is to be tested on the joint sealing membrane "illbruck ME508 TwinAktiv VV".

3. Installation of the sample

3.1 Sample with longitudinal joints

The joint sealing membrane was installed on 13.10.2020 in the client's test laboratory in Bodenwöhr in the presence of Dr. Schnatzke, Material Testing Institute.

The joint sealing membrane was bonded (one-sided installation) over the joints formed by parallel rectangular aluminium profiles at the specified test joint width. The flanks were pressed on with a seam roller.

Table 1: Test specimen

Joints	Joint sealing membrane	Joint width	Joint flank	Joint flank
1 - 3	"illbruck ME508 TwinAktiv VV" (70 mm)	20 mm	25 mm SK-Strip	25 mm from the full SK area

The joint widths of 20 mm were adjusted at the upper and lower ends with rigid, fixed spacers. The complete test body was screwed together in each case by two threaded rods arranged at the ends of the profiles and passing through the hollow chamber profiles and the spacers (Figures 4 and 5).

The sealed test specimen was then stored in the manufacturer's air-conditioned (23/50) test laboratory until testing.

3.2 Test equipment

The test device consists of a box, dimensions s. Figure 1, with an opening in front of which the test specimens with the installed specimens are mounted.

The device for generating a controllable air pressure difference between the chamber interior and the external environment, as well as devices for measuring the pressure difference and the supplied air volume are provided (see Figures 3a, 3b). The measuring devices for measuring the supplied air quantity are calibrated at regular intervals by the manufacturer of the measuring devices. The air pressure difference is displayed digitally and controlled via a U-pipe manometer connected in parallel.

The test chamber also has a water-spraying device (nozzles). The position of the nozzles is shown in figure 2. The presence of a continuous film of water on the entire test surface can

be checked by means of lighting and glass panes in the spray chamber of the sprinkler system.

4. Tests and test results

4.1 Tightness against driving rain

The driving rain test took place on 14.10.2020 in the test rooms of the manufacturer on the samples installed in the test body on 13.10.2020.

The following persons were present:

1. Mr Dr. Pronold (temporarily),	product development	} Tremco CPG Germany GmbH
2. Mr Schießl,	laboratory assistant	}
3. Mr Dr. Schnatzke,	experimental management,	Material Testing Institute

The test bench was prepared for the driving rain test by fixing the test specimen in front of the test stand (see pictures 4 and 5).

The test parameters were in accordance with DIN EN 1027 (spraying method 1A), section 7.

1. The air temperature in the test room before the test started was 23.5°C.
2. The air humidity in the test room before the start of the test was 49% relative.
3. The air pressure in the test room before the test was 101.4 kPa
4. The water temperature (drinking water) was measured at 24.5°C before the test began.
5. The spraying performance of the three nozzles was (l/m/r) 2.0 / 2.1 / 1.9 l/min.

The test was started with an initial load by 3 pressure surges of 660 Pa each. The time sequence, spraying and increase of the test pressure up to a final pressure of 600 Pa was carried out in accordance with the standard DIN EN 1027, section 7.2 and figure 4, driving rain tightness - test method.

The tightness against driving rain was checked for water passing through the samples by constantly illuminating the samples with a lamp.

Request:

For classification according to DIN EN 12208 (class E1050), no water or moisture penetration must be detectable up to a test pressure of 1050 Pa.

Test result:

The installed joint sealing membranes were driving rainproof up to a test pressure of 1050 Pa with the chosen fastening variant. The requirements of class E1050 are fulfilled.

Hint:

This is followed by pages 4 to 7 with figures 1 to 5.

Hanover, 27 October 2020

Head of Chemical Laboratory

(Dr. T. Schnatzke)

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Figure 1: Open test bench without the test body used

Figure 2: Open test bench with arrangement of the three water spray nozzles

Figure 3a: Test bench control (pressure control)

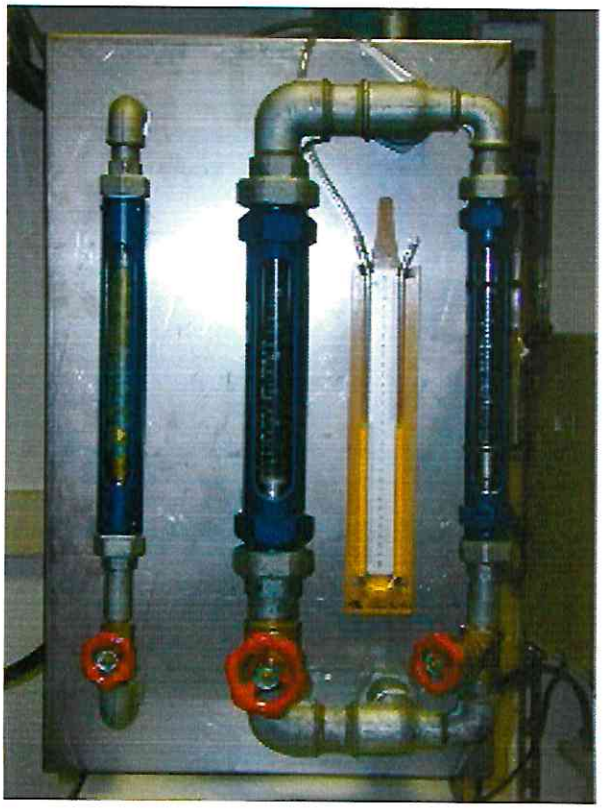

Figure 3b: Test bench control (water and air volume)

Figure 4: Test specimen with the installed adhesive tape
(View of the driving rain charged side)

Figure 5: Test body, installed in the test bench