**Test report no.:** **84615/08-III-P1**

**Customer:**
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**Order:** Testing of one-component joint sealant
**DAYSON** PU MASTIC according to
DIN EN ISO 11600 - type F classification 25 HM.

**E-mail from:** 2008-11-14 **Ref:** Mr Aldo NASI

**Sample receipt:** 2008-12-05

**Test period:** 2008-12-09 to 2009-01-26

**Initial issue of test report:** 2009-02-10

This test report consists of 5 pages.

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Sc/ste

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International akkreditiert
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The original language of the report is German. In case of doubt, the German version is obligatory.



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## 1. Order

In its letter from November 14, 2008 the producer instructed the SKZ - TeConA GmbH to test the one-component joint sealant **DAYSON** PU MASTIC according to DIN EN ISO 11600 - type F - classification 25 HM.

## 2. Test material

On 5 December 2008 SKZ - TeConA GmbH received following samples for testing:

| | |
|---|---|
| 6 cartridges | one-component joint sealant |
| Base material: | Polyurethan |
| Charge: | 864948 |
| Colour: | white |

## 3. Test procedure

Testing of one-component joint sealant **DAYSON** PU MASTIC was carried out in accordance with DIN EN ISO 11600 (issue April 2004), table 3 - requirements for construction sealants (F) - classification 25 HM.

According to ISO 7389, ISO 8339, ISO 8340 and ISO 10590 elongation agreed upon for testing is 100 %. This corresponds to a joint width of 24 mm.

Usually we carry out tests according to standards for which we have an accreditation. The list of all standards for which we are accredited is shown on the homepage at www.skz.de.

Test specimen preparation and pre-treatment

According to ISO 13640, method M1, mortar as substrate with a size of 70 x 25 x 12 mm was used. The joint dimension was 12 x 12 x 50 mm. No primer was used for the preparation of the contact surface.

The preparation of the samples was carried out according to ISO 7389, ISO 8339, ISO 8340, ISO 9047, ISO 10590, method A.

method A: 28 days at (23 ± 2) °C and (50 ± 5) % rel. humidity.

3.1 Elastic recovery

This test was carried out according to ISO 7389 with an extension of 100 %.

Requirement: Elastic recovery shall be at least 70 %.

3.2 Tensile properties (secant tensile modulus)

The test was carried out according to ISO 8339. The secant tensile modulus was determined at an extension of 100 % at a temperature of 23 °C and -20 °C.

Requirement:

Secant tensile modulus at 23 °C: > 0.4 N/mm²
or
at -20 °C: >0.6 N/mm²

3.3 Tensile properties at maintained extension

This test was carried out according to ISO 8340 with an extension of 100 % at a temperature of 23 °C and -20 °C.

Requirement:

On the 100 % elongated samples, there must be no adhesive- or cohesive failure after 24 hours.

3.4 Determination of adhesion/cohesion properties at variable temperatures

This test was carried out according to ISO 9047. The amplitude of extension/compression was ± 25 % of the initial joint width.

Requirement:

The joint sealant must not separate from the contact material nor shall the joint sealant display any signs of crack formation.

3.5 Adhesion and cohesion properties at maintained extension after immersion in water

This test was carried out according to ISO 10590 with an extension of 100 %.

Requirement:

On the 100 % elongated samples, there must be no adhesive- or cohesive failure after 24 hours.

3.6 Change in volume

The test was carried out according to ISO 10563.

Requirement: The change in volume must be ≤ 10 %.

3.7 Resistance to flow

This test was carried out according to ISO 7390, method A and B (horizontal and vertical position) at 5 °C and 50 °C.

Requirement:

According to method A and B at 5 °C and 50 °C the slump (flow) of the joint sealant must not exceed 3 mm.

## 4. Test results

4.1 Elastic recovery

Elastic recovery was 88.9 %.

4.2 Tensile properties (secant tensile modulus)

| Extension [%] | Temperature [°C] | Secant tensile modulus [N/mm²] |
|---|---|---|
| 100 | 23 | 0.4 |
| 100 | -20 | 0.9 |

4.3 Tensile properties at maintained extension

| Extension [%] | Temperature [°C] | Adhesion/cohesion properties after 24 h of extension |
|---|---|---|
| 100 | 23 | + |
| 100 | -20 | + |

+ = The joint sealant of test specimens extended by 100 % of the initial joint width did not display any signs of crack formation or separation from the adherent surface.

4.4 Determination of adhesion/cohesion properties at variable temperatures

Samples did not show any adhesion or cohesion cracks.

4.5 Adhesion and cohesion properties at maintained extension after immersion in water

Samples did not show any adhesion or cohesion cracks.

4.6 Change in volume

The change in volume was -8.2 %.

4.7 Resistance to flow

| method | Temperature in °C | Flowing in mm |
|---|---|---|
| A vertical | 5 | 0 |
| A vertical | 50 | 1.0 |
| B horizontal | 5 | 0 |
| B horizontal | 50 | 0 |

## 5. Designation

Joint sealant DIN EN ISO 11600 - F - 25 HM - $M_1$up

## 6. Assessment of test results

The one-component joint sealant **DAYSON** PU MASTIC meets the requirements in accordance with DIN EN ISO 11600 (issue April 2004), table 3 - requirements for construction sealants (F) - classification 25 HM.