



**TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.**  
**Technical and Test Institute for Construction Prague**

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Notified Body 1020  
Branch 0100 – Prague

# REPORT

on the assessment of performance

according to the Regulation (EU) 305/2011 of the European Parliament and of the Council of 9 March 2011  
(the Construction Products Regulation or CPR), Art. 1.4 of the Annex V (system 3)

No. 1020-CPR-010-036012

Trade name:

**TORPUR**

type / variation: 147

Manufacturer:

**ALPA İNŞ.MALZ.LTD.ŞTİ.**

Address: Güzelevler Mah. 1888 Sok. No: 17 Yüreğir ADANA

Plant: ALPA İNŞ.MALZ.LTD.ŞTİ.

Address: Güzelevler Mah. 1888 Sok. No: 17 Yüreğir ADANA

Order: Z010150239

Number of report pages including title-page: 7

Number of Annexes: -

The person taking responsibility for the content of this report:

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Head Assessor

The person taking responsibility for the correctness of this report:

Stamp of the Notified Body 1020

Prague, February 3, 2016



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Deputy Manager of the Notified Body 1020

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Bank Name: KB Praha 1 Czech Republic, Account Number: 1501-931/0100, INO: 000 15679, VAT: CZ00015679

## 1. Specification of tested subject

Description and intended use of the product: TORPUR 147 is polyurethane based one component sealant. It is used at exterior expansions joints in buildings.

Technical specification: EN 15651-1:2012

Manufacturer: ALPA İNŞ.MALZ.LTD.ŞTİ.

Plant: Güzelevler Mah. 1888 Sok. No: 17 Yüreğir ADANA

## 2. Sampling

Date of sampling: 11.9. 2015

Place of sampling: Güzelevler Mah. 1888 Sok. No: 17 Yüreğir ADANA

Sampler: Mr. Akin Kuruagac

Sampling method: according to EN 15651-5

Transport mode: DHL

Date of the taking over: 15.9. 2015

Sample Registration number: VZ010150376 (Batch No: 0809151, color: grey, polyurethane based)

## 3. The assessment of performance on basis of testing and descriptive documentation

The assessment was carried out on basis of testing and descriptive documentation.

The Test results are listed in the reports:

Test report No. 010-036008 on tests determination of elastic recovery of sealants, determination of resistance to flow of sealants, determination of tensile properties, determination of tensile properties at maintained extension, determination of tensile properties of sealants at maintained extension after immersion in water and determination of change in mass and volume, issued by TZÚS Prague, s.p., Central laboratory, Testing department Prague on 26.1. 2016.

Test report No. 020-034529 on determination of tensile properties, issued by TZÚS Prague, s.p., Central laboratory, Testing department České Budějovice on 29.1. 2016.

### 3.1 The assessment on basis of testing

#### 3.1.1. Determination of resistance to flow of sealants

Sample specification: TORPUR 147

Assessment according to the test method: ČSN EN ISO 7390: 2004, cor. 1/2006

Test was carried out by: Jiří Novák

Date of the test ending: 15.10. 2015

Another date about the test: Method B

Test result:

Sample No.	1	2	3
Resistance to flow [mm]	0,0	0,0	0,0
Average [mm]			0,0

### 3.1.2. Determination of change in loss volume

Sample specification: TORPUR 147

Assessment according to the test method: ČSN EN ISO 10563: 2006, cor. 1/2011

Test was carried out by: Jiří Novák

Date of the test ending: 12.12. 2015

Another date about the test: -

Test conditions:

28 days at temperature (23±2) °C and relative humidity (50±5) %,

7 days at temperature (70±2) °C in kiln-drying,

1 day at temperature (23±2) °C and relative humidity (50±5) %.

Test result:

Sample No.	1	2	3
Loss of volume [%]	-10,2	-10,1	-8,9
Average [%]			-9,7

### 3.1.3. Determination of tensile properties of sealants at maintained extension after immersion in water

Sample specification: TORPUR 147

Assessment according to the test method: ČSN EN ISO 10590: 2006

Test was carried out by: Jiří Novák

Date of the test ending: 2.12. 2015

Another date about the test: Method of test sample conditioning: B

Deposition of samples:

28 days at temperature (23±2) °C and relative humidity (50±5) %,

3 cycles: 3 days in kiln-drying at temperature (70±2) °C,

1 day in distilled water at temperature (23±2) °C,

2 days in kiln-drying at temperature (70±2) °C,

1 day in distilled water at temperature (23±2) °C.

1 day at temperature (23±2) °C and relative humidity (50±5) %.

Test result: Elongation – 60%

Sample No.	1	2	3
Failure in adhesion	Area A: 100 %	Area A: 100 %	Area A: 100 %
Failure in cohesion	No failure	No failure	No failure

### 3.1.4. Determination of tensile properties

Sample specification: TORPUR 147

Assessment according to the test method: ČSN EN ISO 8339: 2006

Test was carried out by: Ing. Dana Pilařová

Date of the test ending: 28.1. 2016

Another date about the test: used temperature -30°C

Method of test sample conditioning: B

Deposition of samples:

28 days at temperature (23±2) °C and relative humidity (50±5) %.

3 cycles:        3 days in kiln-drying at temperature (70±2) °C,  
                      1 day in distilled water at temperature (23±2) °C,  
                      2 days in kiln-drying at temperature (70±2) °C,  
                      1 day in distilled water at temperature (23±2) °C.

1 day at temperature (23±2) °C and relative humidity (50±5) %.

Test result:

Sample No.	1	2	3
Secant modulus at elongation 60 % [N/mm <sup>2</sup> ]	0,53	0,58	0,53
Average [N/mm <sup>2</sup> ]			<b>0,55</b>

### 3.1.5. Determination of tensile properties at maintained extension

Sample specification: TORPUR 147

Assessment according to the test method: ČSN EN ISO 8340: 2006

Test was carried out by: Ing. Dana Pilařová

Date of the test ending: 28.1. 2016

Another date about the test: used temperature -30°C

Method of test sample conditioning: B

Deposition of samples:

28 days at temperature (23±2) °C and relative humidity (50±5) %.

3 cycles:        3 days in kiln-drying at temperature (70±2) °C,  
                      1 day in distilled water at temperature (23±2) °C,  
                      2 days in kiln-drying at temperature (70±2) °C,

1 day in distilled water at temperature (23±2) °C.

1 day at temperature (23±2) °C and relative humidity (50±5) %.

Test result: Elongation – 60%

Sample No.	1	2	3
Adhesion/cohesion [-]	No failure	No failure	No failure
Average [-]			No failure

### 3.1.6. Durability – determination of tensile properties

Sample specification: TORPUR 147

Assessment according to the test method: ČSN EN ISO 8339: 2006

Test was carried out by: Jiří Novák

Date of the test ending: 26.11. 2015

Another date about the test: used temperature 23°C

Method of test sample conditioning: B

Deposition of samples:

28 days at temperature (23±2) °C and relative humidity (50±5) %.

3 cycles:        3 days in kiln-drying at temperature (70±2) °C,  
                      1 day in distilled water at temperature (23±2) °C,  
                      2 days in kiln-drying at temperature (70±2) °C,  
                      1 day in distilled water at temperature (23±2) °C.

1 day at temperature (23±2) °C and relative humidity (50±5) %.

Test result:

Sample No.	1	2	3
Secant modulus at elongation 60 % [N/mm <sup>2</sup> ]	0,34	0,37	0,31
Average [N/mm <sup>2</sup> ]			0,34

### 3.1.7. Durability – determination of tensile properties

Sample specification: TORPUR 147

Assessment according to the test method: ČSN EN ISO 8339: 2006

Test was carried out by: Ing. Dana Pilařová

Date of the test ending: 28.1. 2016

Another date about the test: used temperature -20°C

Method of test sample conditioning: B

Deposition of samples:

28 days at temperature (23±2) °C and relative humidity (50±5) %,

3 cycles:        3 days in kiln-drying at temperature (70±2) °C,

1 day in distilled water at temperature (23±2) °C,

2 days in kiln-drying at temperature (70±2) °C,

1 day in distilled water at temperature (23±2) °C.

1 day at temperature (23±2) °C and relative humidity (50±5) %.

Test result:

Sample No.	1	2	3
Secant modulus at elongation 60 % [N/mm <sup>2</sup> ]	0,50	0,45	0,48
Average [N/mm <sup>2</sup> ]			<b>0,48</b>

### 3.1.8. Durability – determination of tensile properties at maintained extension

Sample specification: TORPUR 147

Assessment according to the test method: ČSN EN ISO 8340: 2006

Test was carried out by: Jiří Novák

Date of the test ending: 26.11. 2015

Another date about the test:

Method of test sample conditioning: B

Deposition of samples:

28 days at temperature (23±2) °C and relative humidity (50±5) %.

3 cycles: 3 days in kiln-drying at temperature (70±2) °C,  
1 day in distilled water at temperature (23±2) °C,  
2 days in kiln-drying at temperature (70±2) °C,  
1 day in distilled water at temperature (23±2) °C.

1 day at temperature (23±2) °C and relative humidity (50±5) %.

Test result: Elongation – 60%

Sample No.	1	2	3
Adhesion/cohesion [-]	No failure	No failure	No failure
Average [-]			<b>No failure</b>

### 3.1.9. Durability – determination of adhesion/cohesion properties of sealants at variable temperatures

Sample specification: TORPUR 147

Assessment according to the test method: ČSN EN ISO 9047: 2003

Test was carried out by: Ing. Dana Pilařová

Date of the test ending: 28.1. 2016

Another date about the test:

Method of test sample conditioning: B

Deposition of samples:

28 days at temperature (23±2) °C and relative humidity (50±5) %,

3 cycles:        3 days in kiln-drying at temperature (70±2) °C,  
                      1 day in distilled water at temperature (23±2) °C,  
                      2 days in kiln-drying at temperature (70±2) °C,  
                      1 day in distilled water at temperature (23±2) °C.

1 day in kiln-drying at temperature (70±2) °C and relative humidity (50±5) %.

Test result: Amplitude ± 20%

Sample No.	1	2	3
Adhesion/cohesion [-]	No failure	No failure	No failure
Average [-]			<b>No failure</b>

### 3.2 The assessment on basis of descriptive documentation

#### 3.2.1 Release of chemical dangerous to the environment and health

Written declaration of producer ALPA ÎNŞ.MALZ.LTD.ŞTİ.: "Release of dangerous substances" - 3.2. 2016.

### 4. Annexes