

Project number: É1-3197N-06828-2015

Topic No.: A-170/2015

TEST REPORT

Trade name of the product
and/ or tests:

Webac 240, Webac 240 + Bseal I and Webac 240 +
Bseal II acrylate injection gels

Customer:

BAU-HAUS Építő és Szolgáltató Kft.
1015 Budapest, Csalogány u. 6-10.

Name of the test
standards:

MSZ EN ISO 9514:2005	Flow limit
MSZ EN ISO 2811-1:2011	Mass density
MSZ EN 543:2003	Apparent density
MSZ EN ISO 2431:2012	Flow time
MSZ EN ISO 3251:2009	Non-volatile content

Place of tests:

Material Testing Laboratory Budapest,
1113 Budapest, Diószegi út 37.

05. 11. 2015

The test results apply only to the individuals tested.

Without the written permission of the laboratory the test report may only be duplicated in full.
Opinion, interpretation and evaluation given in the test protocol are an activity done in non-accredited status.
This protocol contains 7 pages and - attachment.

1. DATA

1.1. Subject of the assignment

Performing of tests necessary for issuing the National Technical Assessment (NMÉ) no. A-170/2015 concerning Webac 240 injection gels.

1.2. Manufacturing location of the products

WEBAC-Chemie GmbH
D-22855 Barsbüttel Fahrenberg 22., Germany

1.3. Description of the product

Products are multi-component, acrylate injection gels against damp, which are characterized by their low viscosity.

Component A is mixed from sub-components A1 and A2, component B powder is dissolved in water.

Technical data:

▪ **Webac 240 acrylate injection gel**

Mixing ratio:

component A: 16:1 parts by volume = component A1 : component A2

component B: 2:98 parts by weight = B powder : water

1:1 parts by volume = component A : component B-solution

Application temperature: > +1°C

Flow limit (t = 20°C): (40 – 75) sec

Viscosity (t = 23°C): 6 mPa·s

▪ **Webac 240 + Bseal I acrylate injection gel**

Mixing ratio:

component A: 16:1 parts by volume = component A1 : component A2

component B: 200 g/l of powder B in water + Bseal I

1:1 parts by volume = component A : component B-solution

Application temperature: > +5°C

Flow limit (t = 20°C): (30 – 50) sec

Viscosity (t = 23°C): 35 mPa·s

▪ **Webac 240 + Bseal II acrylate injection gel**

Mixing ratio:

component A: 16:1 parts by volume = component A1 : component A2

component B: 0.5% or 1% or 2% or 5% B powder dissolved in Bseal II

1:1 parts by volume = component A : component B-solution

Application temperature: > +5°C

Flow limit depending on the concentration of component B (t = 20°C):

concentration of component B [m/m%]	0.5	1	2	5
Flow limit [s]	8 – 28	15 – 45	35 – 85	70 – 170

Viscosity (t = 23°C): 30 mPa·s

1.4. Sampling

The sampling was done by the manufacturer, no sampling report was made on the sampling.

Data of the samples arrived are shown in the following table:

Products	Components	Quantity	ID-number
Component A1	3 x 0.56 kg	324262	04/ 2016
Component A2	3 x 0.030 kg	324267	04/ 2016
Component B powder	3 x 0.026 kg	324266	04/ 2016
Bseal I	0.52 kg	528101	01/ 2016
Bseal II	0.52 kg	324604	02/ 2016

Arrival time of the samples: 25. 08. 2015

2. TESTS

Components were conditioned before testing at $(23 \pm 2)^{\circ}\text{C}$ and $(50 \pm 5)\%$ RH for 24 hours.

2.1. Mass density according to MSZ EN ISO 2811-1:2011 (pycnometer method)

Date of test: 22nd September 2015

Location of the test: Material Testing Laboratory, climate room U408

Test conditions: $t = 23.1^{\circ}\text{C}$

Measuring tools used for the test:

Name of tool/ measuring range	Catalogue number of the instrument	Verification method
Metal pycnometer/ 50 cm ³	225.1.	functional inspection
Electric scale/ (0 – 1000) g	207.6	calibration

2.2. Flow time by used flow cups according to MSZ EN ISO 2431:2012

Date of test: 22nd September 2015

Location of the test: Material Testing Laboratory, climate room U408

Test conditions: $t = 23.1^{\circ}\text{C}$, RH = 52.7%

Measuring tools used for the test:

Name of tool/ measuring range	Catalogue number of the instrument	Verification method
Stopper/ (0 – 30) min	205.	calibration
Flow cup / $\varnothing = 4$ mm discharge hole	213.2	own inspection

2.3. Non-volatile content according to MSZ EN ISO 3251:2009

Date of test: 22nd September 2015
 Location of the test: Material Testing Laboratory, U313 lab
 Test conditions: 60 min, at 125°C
 Measuring tools used for the test:

Name of tool/ measuring range	Catalogue number of the instrument	Verification method
Analytical scale/ (0 – 200) g	304.	calibration
Air recirculation drying cabinet/ (30 – 200)°C	299.1.	calibration

2.4. Pot life according to MSZ EN ISO 9514:2005 standard

Date of test: 22nd September 2015
 Location of the test: Material Testing Laboratory, climate room U408
 Test conditions: t = (23.1 – 23.9)°C, RH = 52.7%
 Short presentation of the test: The components of the injection substances were mixed in volume ratio of 1:1 according to the specifications indicated on the data sheets, and then we measured the time elapsed between mixing and start of hardening.

Measuring tools used for the test:

Name of tool/ measuring range	Catalogue number of the instrument	Verification method
Stopper/ (0 – 30) min	205.	calibration

2.5. Apparent density of powder based on MSZ EN 543:2003 standard

Date of test: 21st October 2015
 Location of the test: Material Testing Laboratory, U302 lab
 Test conditions: t = 21.4°C
 Measuring tools used for the test:

Name of tool/ measuring range	Catalogue number of the instrument	Verification method
Analytical scale/ (0 – 200) g	206.	calibration
Measuring cylinder / 25 cm ³	265.	functional inspection

3. RESULTS

3.1. Mass density according to MSZ EN ISO 2811-1:2011 standard (pycnometer method)

Components	Mass density [g/cm ³]			
	1.	2.	3.	average
Component A1	1.196	1.197	1.196	1.196
Component A2	0.942	0.941	0.942	0.942
Bseal I	1.012	1.013	1.013	1.013
Bseal II	1.004	1.003	1.003	1.003
A1: A2 = 20:1 parts by weight	1.191	1.192	1.91	1.191

3.2. Flow time by used flow cups according to MSZ EN ISO 2431:2012 standard

Components	Flow time [sec]			
	1.	2.	3.	average
Component A1	22	22	23	22
Bseal I	48	49	48	48
Bseal II	21	22	22	22
A1: A2 = 20:1 parts by weight	23	23	23	23

The dynamic viscosity was determined based on the flow time and density:

$$\eta = \nu \cdot \rho$$

η : dynamic viscosity [mPa·s]
 ν : kinematic viscosity [m²/s]
 ρ : density [kg/m³]

The kinematic viscosity of the injection substance was determined by means of the kinematic viscosity taken by the calibration fluids of known kinematic viscosity – discharging time diagrams.

The results of the calculation are summarized in the following chart:

Components	Dynamic viscosity (η) [mPa·s]
Component A1	52.8
Bseal I	82.2

Components	Dynamic viscosity (η) [mPa·s]
Bseal II	44.3
A1: A2 = 20:1 parts by weight	54.3

3.3. Non-volatile content according to MSZ EN ISO 3251:2009 standard

Components	Non-volatile content [m/m%]			
	1.	2.	3.	average
Component A1	39.15	39.39	39.30	39.3
Component A2	45.07	46.07	49.87	47.0
Bseal I	56.46	56.46	56.49	56.5
Bseal II	47.09	47.07	47.06	47.1

3.4. Pot life according to MSZ EN ISO 9514:2005 standard

Product name	Pot life ¹ [sec]			
	1.	2.	3.	average
Webac 240	43	43	42	43
Webac 240 + Bseal I	50	49	51	50
Webac 240 + Bseal II	52	52	53	52

¹: under environmental conditions of $(23 \pm 2)^\circ\text{C}$.

Pot life of the Webac 240 + BSeal II depends on the concentration of the component B; the values in the chart were measured at 1.0% concentration of the component B.

3.5. Apparent density of powder based on MSZ EN 543:2003 standard

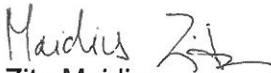
Component	Apparent density of powder [g/cm ³]			
	1.	2.	3.	average
Component B powder	1.19	1.23	1.22	1.21

4. DECLARATION

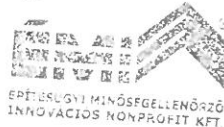
5. ATTACHMENTS

Budapest, 5th November 2015

Tests were made and the protocol was
compiled by:


Zita Maidics
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(2)



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