

TEST REPORT No. 8011209051/1

Particulars of order :

Name of orderer : **BITUM**
His address : 4, Hayetsira Street, P. O. Box 10175, 26111 Haifa Bay
Date of order : 19/06/2000

Report on the Product :

Samples of sealing material called "Mastigum Spray" manufactured by the BITUM Company, which had been applied by a representative of the orderer unto various structures.

Particulars of sampling :

The sample was taken on date : July 2000.
The sampling was chosen by the orderer's representative.
Sample size : 1

Type of analysis :

Establish the characteristics in conformance with the BITUM Company testing programs.

This report includes 3 pages, and should be used in its entirety only.

This document relates to the samples tested only, and should not be related to other samples of the same product.

General : Testing program and test results – see pages 2 and 3.

Signatory's name : Peysik Zohar
His position : Head of Sealing and Coating Materials

Signatory's name : Engineer Laser Tsfira
Her position : Head of the Division of Finishing Materials

30/08/2000

TESTING PROGRAM

1. Thickness measurements (dry material) in accordance with the method indicated in Israeli Standard No. 1430/3.
 2. Stretch strength (in accordance with the method indicated in ASTM - D412).
 3. Elongation (in accordance with the method indicated in clause 2 above).
 4. Stretch strength following water immersion at 50°C for 168 hours (in accordance with the method indicated in clause 2 above).
 5. Elongation following water immersion at 50°C for 168 hours (in accordance with the method indicated in clause 2 above).
 6. Bridging over cracks (in accordance with the method indicated in Israeli Standard No. 1731), maximum decreased strength : -25 %.
 7. Bridging over cracks (in accordance with the method indicated in Israeli Standard No. 1731), maximum decreased strength : -35 %.
 8. Recovery following 800 % elongation (800 % elongation of sample sized 50 mm length, 10 mm width, whereas the distance between the testing point is 25 mm). Measurement was performed after 60 minutes following sample release.
 9. Resistance at high temperature of 90°C in accordance with the method indicated in Israeli Standard No. 1430/3.
 10. Resistance at low temperature of -15°C in accordance with the method indicated in Israeli Standard No. 1430/3.
 11. Permeability to water vapor passage (in accordance with the method indicated in ASTM-4-96).
 12. Water penetration under pressure (in accordance with the method indicated in DIN 52123).
- (Testing was performed using a fiberglass net with a rib length of 1.0 mm).

TEST RESULTS

#	Feature tested	Test Method	Unit	Test Results	Remarks
1	Measurements of dry thickness (mm)	In accordance with method indicated in Israeli Standard 1430/3	mm	3.8 + 6.0	-
2	Stretch strength (maximum)	In accordance with method indicated in ASTM- D- 412	mps	Units : 0.12 ÷ 0.16 Average : 0.14	Thickness of sample : 4.4 ÷ 6.0
3	Elongation (maximum)	In accordance with method indicated in ASTM- D- 412	%	Units : 1191 ÷ 1738 Average : 1484	
4	Stretch strength (maximum) after water immersion	In accordance with method indicated in ASTM- D- 412	mps	Units : 0.07 ÷ 0.18 Average : 0.12	Change : -14.3
5	Elongation (maximum) after water immersion	In accordance with method indicated in ASTM- D- 412	%	Units : 973 ÷ 1608 Average : 1295	Change : -12.7
6	Bridging over cracks, elongation (max. strength decrease of -25 %)	In accordance with method indicated in Israeli Standard 1731	mm	Units : 12.2 ÷ 23.6 Average : 16.1	Thickness of sample : 3.9 ÷ 5.4
7	Bridging over cracks, elongation (max. strength decrease of -35 %)	In accordance with method indicated in Israeli Standard 1731	mm	Units : 51.4 ÷ 62.4 Average : 58	
8	Recovery after 800 % elongation	- initial distance : 25 mm - measurement : 60 min. after sample release	%	92	-
9	Resistance at high temperature of 90°C	In accordance with method indicated in Israeli Standard 1430/3	°C	* The material remains stable * No visible slippery signs	-
10	Resistance at low temperature of -15°C	In accordance with method indicated in Israeli Standard 1430/3	°C	The samples did not crack	-
11	Permeability to water vapor (μ)	ASTM- E- 96	M/M	265	Thickness of sample : about 4 mm.
12	Water penetration under pressure	DIN- 52123	Atm.	1 Atm. after 24 hrs. 2 Atm. after 24 hrs. No water passage No water passage	Thickness of sample : about 4 mm.