



PRI Construction Materials Technologies LLC

6412 Badger Drive

Tampa, FL 33610

813.621.5777

<https://www.pri-group.com/>

Laboratory Test Report

Contact: Kelly Allore
Dow Silicones Corporation
2200 West Salzburg Road
Midland, Michigan 48686

Product Name: DOWSIL™ 983 Structural Glazing Sealant

Project No.: 2107T0006

Dates Tested: Mar 5, 2020 - Dec. 3, 2020

Test Methods: ASTM C 1184

Results Summary: Compliant with ASTM C 1184 – Type M, Grade NS, Use G and A

Purpose: Determine specification properties of the identified product for compliance with ASTM C 1184: *Standard Specification for Structural Silicone Sealants*.

Test Methods: Testing was completed as described in ASTM C 1184-18e1: *Standard Specification for Structural Silicone Sealants*. Test methods assigned or referenced include ASTM C 603: *Standard Test Method for Extrusion Rate and Application Life of Elastomeric Sealants*, ASTM C 639: *Standard Test Method for Rheological (Flow) Properties of Elastomeric Sealants*, ASTM C 661: *Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer*, ASTM C 679: *Standard Test Method for Tack-Free Time of Elastomeric Sealants*, ASTM C 792: *Standard Test Method for Effects of Heat Aging on Weight Loss, Cracking, and Chalking of Elastomeric Sealants*, ASTM C 1135: *Standard Test Method for Determining Tensile Adhesion Properties of Structural Sealant*, ASTM C 1442: *Standard Practice for Conducting Tests on Sealants Using Artificial Weathering Apparatus*.

Sampling and

Sample Preparation: Specimen preparation was performed using DOWSIL™ 983 Structural Glazing Sealant with PRI-supplied substrates on March 6, 2020 at:

West Tampa Glass
2705 N 35th St.
Tampa, FL 33605.

2107T0006

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Results:

ASTM C 1184

Property	Test Method	Result	Requirement
Film Physical Property Requirements			
Rheological Properties (in) 1 specimen; Type IV; 3/4" x 1/2" x 6"; Cond. sealant 16h @ 73.4±3.6°F & 50±5%RH; Cond. channel 2h @ Temp; Test Cond. 4h @ Temp	ASTM C 639		
Vertical Slump at 40±3.6°F		0	≤ 3/16
Vertical Slump at 122±3.6°F		0	≤ 3/16
Horizontal Slump at 40±3.6°F		Pass	No deformation
Horizontal Slump at 122±3.6°F		Pass	No deformation
Extrudability (s) 1 specimen; Cond. sealant 16h @ 73.4±3.6°F & 50±5%RH; Test Cond. @ 73.4±3.6°F & 50±5%RH Curing period 30 minutes Test with no nozzle @ 50psi	ASTM C 603		
Extrusion Rate		2	≤ 10
Hardness (Shore A) 2 specimens; 5" x 1-1/2" x 1/4"; 3 measurement readings per specimen (6 total); Cond. 14d @ 73.4±3.6°F & 50±5%RH; Test Cond. 73.4±3.6°F & 50±10%RH; Test Durometer, Type A-2	ASTM C 661		
Indentation Hardness		43	20 - 60
Effects of Heat Aging 3 specimens; 5" x 1-1/2" x 1/4"; Cure 7d @ 73.4±3.6°F & 50±5%RH; Cond. 21d @ 190±10°F	ASTM C 792		
Weight Loss (%)		0.4	≤ 10
Visual examination for presence of cracks or chalking		Pass	No cracking or chalking
Tack-Free Time [Pass/Fail] 2 specimens; 3-3/4" x 1" x 1/8"; Test Cond. 73.4±3.6°F & 50±5%RH	ASTM C 679		
Tack-Free Time (h)		10 mins	No transfer in 3h
<i>Continued on Following Page</i>			

2107T0006

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Property	Test Method	Result	Requirement
Tensile Adhesion on glass and aluminum (hybrid) (psi) 5 specimens per condition; 3/8" x 1/2" x 2"; Substrate float glass; Cure 21d @ 73.4±3.6°F and 50±5%RH; Rate 1/2"/min Condition as follows:	ASTM C 1184		
Standard conditions		143	≥ 50
Test Cond. 1h @ 88±5°C		117	≥ 50
Test Cond. 1h @ -29±2°C		179	≥ 50
Test Cond. 7d immersed in DI water @ 23±2°C		123	≥ 50
Test Cond. 5,000h UV/Con	ASTM C 1442 Sec. 7.3	151	≥ 50

Notes: None

Statement of Compliance: The product tested complies with the physical requirements specified in ASTM C 1184: *Standard Specification for Structural Silicone Sealants* as described herein. The laboratory test results presented in this report are representative of the material supplied.

Signed:



Brent Barbeau

Date:

12/09/2020

Report Issue History:

Issue #	Date	Pages	Revision Description (if applicable)
Original	12/09/2020	3	NA

END OF REPORT

2107T0006

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