

# DOW SILICONES CORPORATION TEST REPORT

**SCOPE OF WORK**

ASTM C719 EVALUATION OF CYCLIC MOVEMENT AT  $\pm 50\%$  FOR COMPLIANCE WITH SWRI SEALANT VALIDATION PROGRAM

**REPORT NUMBER**

H4145.02-106-31 R0

**TEST DATE(S)**

11/07/17 - 01/22/18

**ISSUE DATE**

04/17/18

**RECORD RETENTION END DATE**

01/22/23

**PAGES**

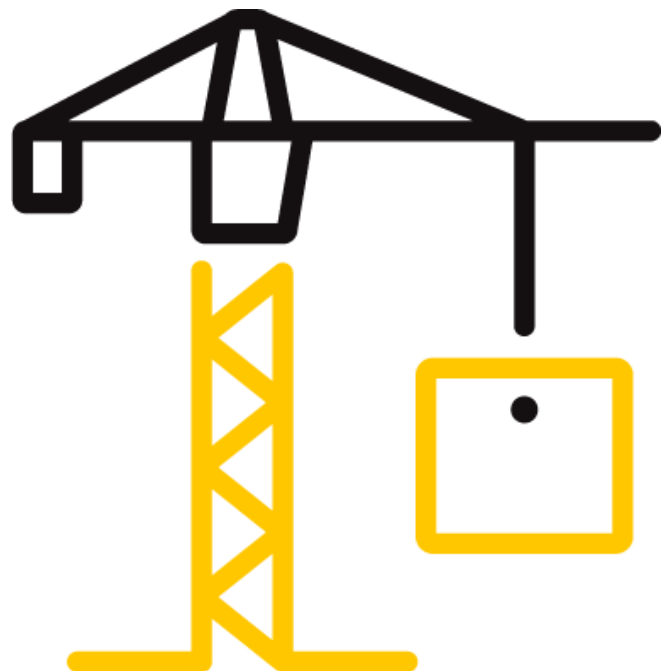
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**DOCUMENT CONTROL NUMBER**

ATI 00231 (09/05/17)

RT-R-AMER-Test-2827

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## TEST REPORT FOR DOW SILICONES CORPORATION

Report No.: H4145.02-106-31 R0

Date: 04/17/18

### REPORT ISSUED TO

#### DOW SILICONES CORPORATION

2200 West Salzburg Road

PO Box 994

Auburn, Michigan 48611

### SECTION 1

#### SCOPE

**Products:** DowSil™ Contractors Concrete Sealant

Intertek Building & Construction (B&C) was contracted by Dow Silicones Corporation, to evaluate DowSil™ Contractors Concrete Sealant in accordance with ASTM C719 for SWRI submittal. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at the Intertek B&C test facility in York, Pennsylvania.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

For INTERTEK B&C:

<b>COMPLETED BY:</b>	J. Rich Hammons
<b>TITLE:</b>	Technician II Materials Laboratory
<b>SIGNATURE:</b>	
<b>DATE:</b>	04/17/18

JRH:dmc/kf

<b>REVIEWED BY:</b>	Dawn M. Chaney
<b>TITLE:</b>	Technician Team Lead Materials Laboratory
<b>SIGNATURE:</b>	
<b>DATE:</b>	04/17/18

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### SECTION 2

#### TEST METHOD

The specimens were evaluated in accordance with the following:

**ASTM C719-14**, *Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle)*

### SECTION 3

#### MATERIAL SOURCE

The materials were purchased by Intertek B&C personnel. One unopened case of the DowSil™ Contractors Concrete Sealant (Lot #0009025569, Expiration Date: February 1, 2018) was purchased. The case of sealant contained twelve 305 ml cartridges. One can of DowSil™ 1200 OS Primer (Lot #0008809604, Expiration Date: January 5, 2018) was purchased. All materials were used prior to their expiration dates. Refer to the product description photos in Section 9. Representative materials/test specimen(s) will be retained by Intertek B&C for a minimum of five years from the test completion date.

### SECTION 4

#### LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
J. Rich Hammons	Intertek B&C
Dawn M. Chaney	Intertek B&C

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### SECTION 5

#### TEST PROCEDURE

All conditioning of test specimens and test conditions were at standard laboratory conditions unless otherwise reported. Refer to the test related photos in Section 9.

#### ASTM C719 - Hockman Cycling

All DowSil™ Contractors Concrete Sealant test specimens were cured according to the following schedule for a one-part sealant:

- 7 days at standard laboratory nominal conditions of 70°F (21°C) and 50% relative humidity
- 7 days at 122°F (50°C) and 50% relative humidity
- 7 days at 122°F (50°C)

Upon completion of this curing process, specimens, the specimens were immersed for 7 days in deionized water at standard laboratory nominal conditions of 70°F (21°C), and then each specimen was hand flexed twice to about 60° to check the bond. The specimens were compressed to 0.250 inch (6.35 mm), and placed in the oven at 158°F (70°C) for seven days. The specimens were removed from the oven and taken out of compression. Within 24 hours of being removed from the oven, the specimens were exposed to ten room temperature compression-extension cycles utilizing the Series 500 Horizontal Sealant Tester (ICN: 005612) at a rate of 1/8 inch per hour. The compression-extension cycle consisted of ±50% from the nominal 1/2 inch thickness. The test specimens were then subjected to ten cycles of the following hot compression-cold extension cycle: compress 50% and place in an oven at 158 ±3.6°F (70 ±2°C) for 16 to 20 hours; cool uncompressed to room temperature for two to three hours; extend to the 50% extension position starting from the 50% compression position utilizing the Series 500 Horizontal Sealant Tester at a rate of 1/8 inch per hour while maintained at -15 ±3°F (-26.1 ±1.7°C); and then warm to room temperature for two hours at 50% extension. At the completion of the compression-extension cycles, the specimens were observed for adhesive/cohesive failure to the substrates.

### SECTION 6

#### TEST SPECIMEN DESCRIPTIONS

TEST PROCEDURE	NUMBER OF SPECIMENS	NOMINAL SPECIMEN DIMENSIONS	VISUAL CHARACTERISTICS
ASTM C719	3	1/2" x 1/2" x 2"	Aluminum - Primed with 1200 OS
ASTM C719	3	1/2" x 1/2" x 2"	Glass
ASTM C719	3	1/2" x 1/2" x 2"	Mortar

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**SECTION 7****TEST RESULTS****ASTM C719 - Hockman Cycling**

<b>SUBSTRATE</b>	<b>SPECIMEN ID</b>	<b>OBSERVATIONS</b>
Aluminum Primed with 1200 OS	1	No cohesive or adhesive failure to substrate
	2	No cohesive or adhesive failure to substrate
	3	No cohesive or adhesive failure to substrate
Glass	1	No cohesive or adhesive failure to substrate
	2	No cohesive or adhesive failure to substrate
	3	No cohesive or adhesive failure to substrate
Mortar	1	No cohesive or adhesive failure to substrate
	2	No cohesive or adhesive failure to substrate
	3	No cohesive or adhesive failure to substrate

**SECTION 8****CONCLUSION**

The aluminum (Primed with 1200 OS) specimens, the glass specimens, and the mortar specimens met the SWRI Sealant Validation Program requirements.

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### SECTION 9 PHOTOGRAPHS



Photo No. 1

DowSil™ Contractors Concrete Sealant Utilized for Testing



Photo No. 2

DowSil™ 1200 OS Primer Utilized for Testing

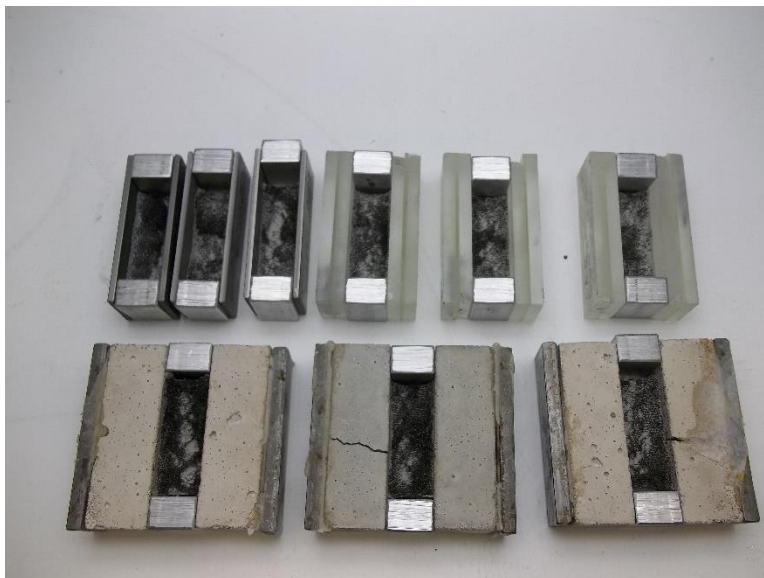
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**Photo No. 3**  
**ASTM C719 Specimens Post-Test Detail (Top)**



**Photo No. 4**  
**ASTM C719 Specimens Post-Test Detail (Bottom)**



Total Quality. Assured.

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### SECTION 10

#### REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	04/17/18	N/A	Original Report Issue