PRI Construction Materials Technologies LLC

6412 Badger Drive
Tampa, FL 33647
813.621.5777
https://www.pri-group.com/

Laboratory Test Report

Report for:	Kelly Allore Dow Silicones Corporation 2200 West Salzburg Road Midland, Michigan 48686
Product Name:	DOWSIL™ 714
Project No.:	2107T0045
Date(s) Tested:	May 2, 2023 - Jun. 12, 2023
Test Method(s):	AAMA 714
Results Summary:	Compliant with: - AAMA 714-19: Level 3 (176°F), Category I (1/8")

Purpose:

Evaluate the performance properties of DOWSIL™ 714 in accordance with AAMA 714: *Voluntary Specification for Liquid Applied Flashing Used to Create a Water-Resistive Seal Around Exterior Wall Openings in Buildings.*

Product is a single component silicone sealant for weatherproofing at window and door openings and other building transitions.

Test Methods:

Testing was completed as required in AAMA 714-19: *Voluntary Specification for Liquid Applied Flashing used to Create a Water-Resistive Seal around Exterior Wall Openings in Buildings*. Test methods assigned or referenced include AAMA 711-13: *Voluntary Specification for Self Adhering Flashing Used for Installation of Exterior Wall Fenestration Products*, ASTM C 794-18: *Standard Test Method for Adhesion-in Peel of Elastomeric Joint Sealants*, ASTM C 1305-16: *Standard Test Method for Crack Bridging Ability of Liquid Applied Waterproofing Membrane*, ASTM E 96/E96M-16: *Standard Test Methods for Water Vapor Transmission of Materials*, ASTM G 154-16: *Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials*, and ICC-ES AC212 4-2018: *Acceptance Criteria for Water-Resistive Coatings used as Water-Resistive Barriers over Exterior Sheathing.*

Sampling:

The following materials were sampled remotely by PRI.

Product	Source	Date	Sampling
DOWSIL™ 714	Shepherdsville, KY	Apr. 21, 2023	PRI

Results:

AAMA 714-19

Property	Test Method	Result	Requirement
Test Requirements			
Adhesive Strength to Substrates (lbf) 3 specimens; 1" x 1/16"; Cure 7d @ 73.4±3.6°F & 50±5%RH followed by; Test Cond. 73.4±3.6°F & 50±5%RH; Rate 2.0"/min	ASTM C 794		
Concrete Masonry Units (CMU) primed with Dowsil Primer P		14	≥ 5
Cement Mortar Slabs primed with Dowsil Primer P		12	≥ 5
Plywood		13	≥ 5
OSB		12	≥ 5
Moisture content prior to application (%)		17	Report
Water Penetration Around Nails [Pass/Fail] 5 specimens; 4" x 4" (applied to plywood); Two 1-1/4" roofing nails placed near center of specimen; Cond. 24h @ standard conditions; Test 1.2inw.c. @ 40±5°F for 24h; Visual Inspection for water infiltration	ASTM D 1970 Section 7.9	Pass	Pass
Bottom Can; [Water/No Water]		No Water	No Water
Nail Shank; [Water/No Water]		No Water	No Water
Underside of Plywood; [Water/No Water]		No Water	No Water
Water Penetration Around Nails [Pass/Fail] 5 specimens; 4" x 4" (bonded to plywood); 1/16" WFT Two 1-1/4" roofing nails placed near center of specimen; Cond. 24h @ 73.4±3.6°F & 50±5% RH followed by; 10 cycles; 8h @ 120±2°F followed by 16h @ -40±2°F Test 1.2inw.c. @ 40±5°F for 24h; Visual Inspection for water infiltration	ASTM D 1970 Section 7.9	Pass	Pass
Bottom Can; [Water/No Water]		No Water	No Water
Nail Shank; [Water/No Water]		No Water	No Water
Underside of Plywood; [Water/No Water]		No Water	No Water
Accelerated Aging (lbf/in) 3 specimens; 1" x 1/16"; Cement Mortar Slab Cond. vertically 24h @ 73.4±3.6°F; Cond. 336h ASTM G 154 UVA Cycle 1; Test Cond. 73.4±3.6°F & 50±5%RH; Rate 2.0"/min	ASTM G 154 ASTM C 794	33	≥ 5
Visual examination [*Pass/Fail*]		Pass	No change in appearance

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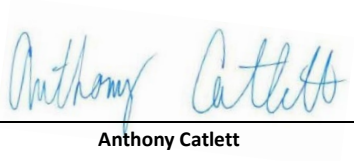
Property	Test Method	Result	Requirement
Elevated Temperature (lbf/in) 3 specimens; 1" x 1/16"; Cement Mortar Slab Cond. vertically 24h @ 73.4±3.6°F; Cond. 7d @ 80°C; Test Cond. 73.4±3.6°F & 50±5%RH; Rate 2.0"/min	AAMA 711 ASTM C 794 Level 3	12	≥ 5
Visual examination [*Pass/Fail*]		Pass	No change in appearance
Thermal Cycling (lbf/in) 3 specimens; 1" x 1/16"; Cement Mortar Slab Cond. vertically 24h @ 73.4±3.6°F; Cond. 8h @ 50±1°C followed by; Cond. 16h @-40±1°C: total of 10 Cycle; Test Cond. 73.4±3.6°F & 50±5%RH; Rate 2.0"/min	AAMA 711 ASTM C 794	14	≥ 5
Visual examination [*Pass/Fail*]		Pass	No change in appearance
Crack Bridging Ability, Category I *[Pass/Fail]* 5 specimens; 51mm x 51mm; 1/16" WFT Cond. 14d @ 23±2°C & 50±10%RH to cure film; Cond. 7d @ 70±2°C; Test 10 cycles @ -26°C; Test Rate = 3.2mm/h from 0.0mm to 3.2mm Expose to 550 ml head of water for 24h extended position	ASTM C 1305/ AAMA 714 Section 5.6	Pass	No cracking, splitting, pinholes, or other conditions in the area of the joint in the substrates
Water Immersion (lbf) 3 specimens; 1" x 1/16"; Cure 21d @ 73.4±3.6°F & 50±5%RH followed by; Immersed in distilled water for 7d @ 73.4±3.6°F Test Cond. 73.4±3.6°F & 50±5%RH; Rate 2.0"/min	AAMA 714 Section 5.7 ASTM C 794		
Anodized Aluminum After Immersion		9	≥ 5
Visual examination		Pass	Note change in appearance
Test Requirements on a Damp Surface (optional classification)			
Damp Surfaces (lbf) 3 specimens; 1" x 1/16"; primed with Dowsil Primer P substrate immersed for 24h prior to application Cure 7d @ 73.4±3.6°F & 50±5%RH; Test Cond. 73.4±3.6°F & 50±5%RH; Rate 2.0"/min	ASTM C 794		
Damp Cement Mortar Slabs		21	≥ 5
Moisture Vapor Permeance (Perms) 3 specimens; 25mil DFT; Cure 7d @ 23±2°C & 50±10%RH to cure film; Test Cond. 21±1°C & 50±2%RH	ASTM E 96 Procedure B	15	≥ 10

Note(s): None.

Statement of Compliance:
The product tested complies with AAMA 714-19: Voluntary Specification for Liquid Applied Flashing Used to Create a Water-Resistive Seal around Exterior Wall Openings in Buildings. The laboratory results presented in this report are representative of the material supplied.

Limits of Use:

1. For application to primed Concrete Masonry Units (CMU), primed Cement Mortar, Plywood, and OSB wall substrates.
2. Meets requirements for elevated temperature exposure Classification Level 3 – 80°C.
3. Meets requirements for Crack-Bridging requirements for Category I at 1/16" WFT.

Signed:		**Signed:**	
	Anthony Catlett **Laboratory Manger**		**Brent Barbeau** **Manager**
Date:	Jun. 21, 2023	**Date:**	Jun. 21, 2023

Report Issue History:

Issue #	Date	Pages	Revision Description (if applicable)
Original	Jun. 21, 2023	4	NA

END OF REPORT