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Laboratory Test Report

Report for:	Joerg Szybalski Finotech Switzerland AG Im Dörfli 14B, CH-8700 Küsnacht / Kt. Zurich, Switzerland
Product Name:	SQ-110
Project No.(s):	2408T0003
Date(s) Tested:	Oct. 6, 2021 - Dec. 15, 2021
Test Methods:	ASTM C920
Results Summary:	Compliant: ASTM C920: Type M; Grade NS; Class 12.5; Use M, Use G, Use A

Purpose: Determine specification properties of the identified product for compliance with ASTM C920: *Standard Specification for Elastomeric Joint Sealants*.

Test Methods: Testing was completed as described in ASTM C920-18: *Standard Specification for Elastomeric Joint Sealants*. Test methods assigned or referenced include ASTM C510; *Standard Test Method for Staining and Color Change of Single or Multicomponent Joint Sealants*, ASTM C639: *Standard Test Method for Rheological (Flow) Properties of Elastomeric Sealants*, ASTM C661: *Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer*, ASTM C679: *Standard Test Method for Tack-Free Time of Elastomeric Sealants,* ASTM C719: *Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle),* ASTM C793: *Standard Test Method for Effects of Laboratory Accelerated Weathering on Elastomeric Joint Sealants*, ASTM C794: *Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants* (modified by performing dry-adhesion testing only), ASTM C1183: *Standard Test Method for Extrusion Rate of Elastomeric Sealants* and ASTM C1246: *Standard Test Method for Effects of Heat Aging on Weight Loss, Cracking, and Chalking of Elastomeric Sealants After Cure*, and ASTM C1442: *Practice for Conducting Tests on Sealants Using Artificial Weathering.*

Sampling: The following materials were received by PRI.

Product	Source	Date	Sampling
Finotech SQ-110 –	Manufacturer	Aug. 30, 2021	Manufacturer
Finotech SQ-110 –	Manufacturer	Aug. 30, 2021	Manufacturer

Specimen Prep: Components A and B were mixed in a 12:1 Ratio by mass.

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Results:

Property	Test Method	Result[1,2]	Requirement
Rheological Properties (in) 1 specimen; 3/4" x 1/2" x 6"; Type II Cond. sealant 16h @ 73.4±3.6°F & 50±5%RH; Cond. channel 2h @ *Temp*; Test Cond. 4h @ *Temp*	ASTM C639		
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
Extrusion Rate (ml/min) 1 specimen; Cond. sealant 16h @ 73.4±3.6°F & 50±5%RH; Specific Gravity of complete (ASTM D 1475) Test Cond. @ 73.4±3.6°F & 50±5%RH Test with plastic nozzle @ 40psi for 60s	ASTM C1183 Procedure A		
Specific Gravity	ASTM D1475	NA	Report
Extrusion Rate		NA	≥ 10
Application Life – Type M, Grade P ONLY (mL/min) 1 specimen; Cond. sealant 16h @ 73.4±3.6°F & 50±5%RH; Test Cond. 3h @ 73.4±3.6°F & 50±5%RH Test with plastic nozzle @ 40psi for 60s	ASTM C1183 Procedure A		
Specific Gravity	ASTM D1475	1.2	Report
Extrusion Rate 5 min after mixing		91	≥ 10
Hardness (hardness reading) 2 specimens; 5" x 1-1/2" x 1/4"; 3 measurement readings per specimen (6 total); Cond. 21d @ 73.4±3.6°F & 50±5%RH followed by; Test Cond. 73.4±3.6°F & 50±10%RH; Test Durometer, Type A-2	ASTM C661		
Indentation Hardness		37	< 60
Effects of Heat Aging (%) 3 specimens; 5" x 1-1/2" x 1/4"; Cure 28d @ 73.4±3.6°F & 50±5%RH; Test Cond. 21d @ 158±3.6°F	ASTM C1246		
Percent Weight Loss		0.2	≤ 7
Visual Examination for presence of cracks or chalking		Pass	No cracking or chalking

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Property	Test Method	Result[1,2]	Requirement
Tack-Free Time (h) 2 specimens; 3-3/4" x 1" x 1/8"; Test Cond. 73.4±3.6°F & 50±5%RH; Test @ 72h	ASTM C679		
Actual Tack Free Time		0.5	≤ 72
Stain and Color Change *[Pass/Fail]* 3 specimens; 5" x 1-1/2" x 1/4"; Cond. 24h @ 73.4±3.6°F & 50±5%RH; Test 100h ASTM G 154, Cycle 1 Test 14d at 73.4±3.6°F & 50±5%RH w/ immersion daily	ASTM C510		
Visual Inspection for stain and color change		Pass	No visible stain or color change
Adhesion and Cohesion Under Cyclic Movement (in^2) 3 specimens; 1/2" x 1/2" x 2": Movement ± 12.5% Cure 21d @ 73.4±3.6°F and 50±5%RH followed by; Test Cond. 7d Water Immersion @ 73.4±3.6°F; Test Cond. 7d Compressed @ 158°F; Test 10 cycles at 73.4±3.6°F; Rate 1/8 in/h; Test 10 cycles with compression at 158±3.6°F followed by extension at -15±3°F; Rate 1/8"/h	ASTM C719		
Aggregate loss in bond and cohesion Mortar substrate unprimed		0	≤ 1-1/2
Aggregate loss in bond and cohesion Glass substrate unprimed		0	≤ 1-1/2
Aggregate loss in bond and cohesion Aluminum substrate unprimed		0	≤ 1-1/2
Adhesion-in-Peel (lbf) 4 specimens; 1" x 1/16"; Cure 21d @ 73.4±3.6°F and 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	ASTM C794		
Aggregate loss in bond and cohesion Mortar substrate unprimed	*Pre-immersion*	19	≥ 5
	Post-immersion	17	
Aggregate loss in bond and cohesion Glass substrate unprimed	*Pre-immersion*	20	≥ 5
	Post-immersion	15	
Aggregate loss in bond and cohesion Aluminum substrate unprimed	*Pre-immersion*	18	≥ 5
	Post-immersion	13	
Adhesion-in-Peel exposed to UV through glass (lbf) 4 specimens; 1" x 1/16"; Cure 21d @ 73.4±3.6°F and 50±5%RH followed by; Test Cond. 200h ASTM G 154, Cycle 1 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	ASTM C794/ ASTM C1442		
Adhesion-in-Peel UV through glass unprimed		17	≥ 5

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Property	Test Method	Result[1,2]	Requirement
Effects of Accelerated Weathering *[Pass/Fail]* 3 specimens; 5" x 1-1/2" x 1/4"; Cure 21d @ 73.4±3.6°F and 50±5%RH; Test Cond. 250h ASTM G 154, Cycle 1; Test Cond. 24h @ -15±4°F Test 180° around 1/2" ø mandrel in 1s @ -15°F	ASTM C793		
Visual Inspection for cracking after accelerated weathering		Pass	Pass
Visual Inspection for cracking after cold exposure and low temperature bend		Pass	Pass

Notes: 1 – NA represents "Not Applicable"
2 – All specimens for peel adhesion exhibited less than 25% adhesive failure.

Statement of Compliance: The product tested complies with the physical requirements specified in ASTM C920: *Standard Specification for Elastomeric Joint Sealants*. The laboratory test results presented in this report are representative of the material supplied.

Limits of Use: Refer to page 1 results summary for use, class of movement, and for qualified substrates.

Signed: 

Brent Barbeau
Manager

Date: 06/17/2022

Report Issue History:

Issue #	Date	Pages	Revision Description (if applicable)
Original	06/17/2022	4	NA

END OF REPORT