PLESIO, INC.
COMPUTER SIMULATION REPORT

SCOPE OF WORK
GENEO IN-SWING VINYL SIDE HINGE DOOR WITH ALUMINUM THRESHOLD - NFRC 100/200/500

REPORT NUMBER
M4002.02-116-45 R0

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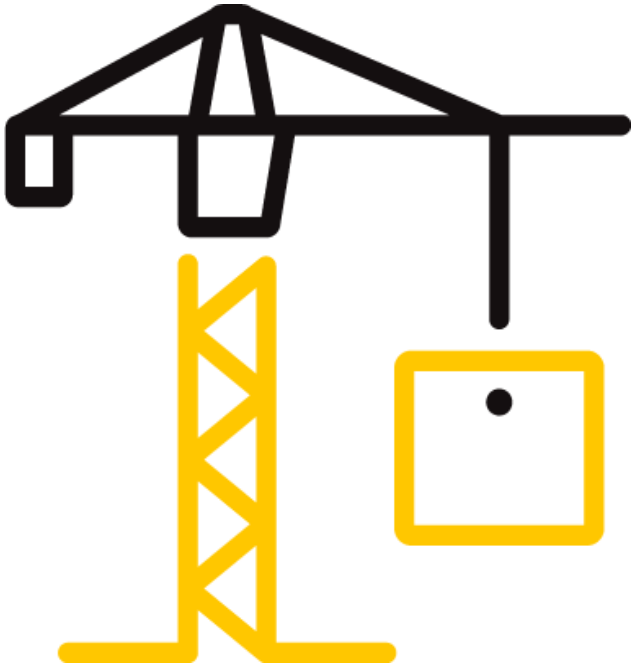

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR PLESIO, INC.
Report No: M4002.02-116-45 R0
Date: 11/08/22

REPORT ISSUED TO
PLESIO, INC.
347 N. Woodmont Drive
Downington, Pennsylvania 19335

SECTION 1
SUMMARY

SERIES/MODEL: GENEO In-Swing Vinyl Side Hinge Door with Aluminum Threshold

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted to perform U-Factor, Solar Heat Gain Coefficient, Visible Transmittance and Condensation Resistance simulations in accordance with the National Fenestration Rating Council (NFRC). This report is reissued in the name of Plesio, Inc. through written authorization of Ventana USA to whom the original report was rendered. The original Ventana USA report number is M4002.01-116-45.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends five years after the test date. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained for the entire test record retention period.

FOR INTERTEK B&C:

COMPLETED BY:	Jonathan P. Spencer	**REVIEWED BY:**	Eric S. Leitner
TITLE:	Project Engineer NFRC Certified Simulator	**TITLE:**	Manager - Simulations and Thermal Testing, SIRC
SIGNATURE:	Jonathan Spencer Digitally Signed by: Jonathan Spencer	**SIGNATURE:**	Eric S. Leitner Digitally Signed by: Eric S. Leitner
DATE:	11/08/22	**DATE:**	11/08/22

JPS:jps

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
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SECTION 2
TEST METHODS

The products were evaluated in accordance with the following:

ANSI/NFRC 100-2020, *Procedure for Determining Fenestration Product U-Factors*

ANSI/NFRC 200-2020, *Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence*

NFRC 500-2017, *Procedure for Determining Fenestration Product Condensation Resistance Values*

**Condensation Resistance results obtained from this procedure are for controlled laboratory conditions and do not include the effects of air movement through the specimen, solar radiation, and the thermal bridging that may occur due to the specific design and construction of the fenestration system opening.*

Ratings values included in this report are for submittals to an NFRC-licensed IA and are not meant to be used directly for labeling purposes. Only those values identified on a valid Certificate of Authorization (CA) by an NFRC accredited Inspection Agency (IA) are to be used for labeling purposes. The ratings values were rounded in accordance with NFRC 601, NFRC Unit and Measurement Policy.

Intertek B&C is an NFRC accredited simulation laboratory and all simulations were conducted in full compliance with NFRC approved procedures and specifications. The values included in this report are not considered in compliance with ANSI/NFRC 100, ANSI/NFRC 200, and/or NFRC 500 unless the associated validation test requirements have been satisfied, as applicable.

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SECTION 3
TEST PROCEDURE

The total product, including specific frame, spacer, and glass details, was modeled using NFRC approved software.

FRAME AND EDGE MODELING	THERM 7.4.4
CENTER-OF-GLASS MODELING	WINDOW 7.4.14
TOTAL PRODUCT CALCULATIONS	WINDOW 7.4.14
SPECTRAL DATA LIBRARY	IGDB 88.0

Modeling Assumptions / Technical Interpretations

Any modeling assumptions and technical interpretations required to model this product are listed below.

1) To prevent air infiltration, tape was applied to all interior sash crack locations.
2) Dividers were not modeled in some options in accordance with ANSI/NFRC 100-2020, Section 4.2.4.1.D.ii.a.

SECTION 4
SIMULATION SPECIMEN DESCRIPTION

SERIES/MODEL	GENEO In-Swing Vinyl Side Hinge Door with Aluminum Threshold
PRODUCT TYPE	Swinging Door, Single Leaf Entrance Door
FRAME MATERIAL	VP - Vinyl w/ Reinforcement - Partial
SASH MATERIAL	VP - Vinyl w/ Reinforcement - Partial
STANDARD SIZE	960mm x 2090mm

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York, Pennsylvania 17406

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SECTION 4 (Continued)

SIMULATION SPECIMEN DESCRIPTION

SPACER OPTIONS			
TYPE	***PRIMARY SEAL***	***SECONDARY SEAL***	***CODE***
Cardinal Endur Spacer	PIB	Silicone	A1-D
Quanex Premium S2 Super Spacer	Butyl Rubber		ZF-S

GRID OPTIONS		
GRID SIZE	***GRID TYPE***	***GRID PATTERN***
3/16" x 5/8"	Aluminum Rectangular Grid (Painted)	NFRC Standard

REINFORCEMENT OPTIONS	
LOCATION	***MATERIAL***
Hinge Jamb: Frame / Sash	Galv. Steel

GAS FILLING TECHNIQUE	
FILL TYPE	***METHOD***
90% Argon	Single Probe, Timed

EDGE-OF-GLASS CONSTRUCTION	
INTERIOR CONDITION	Rigid PVC glazing bead with flexible fins against glass
EXTERIOR CONDITION	EPDM gasket between rigid PVC sash and glass

WEATHERSTRIPPING		
TYPE	***QUANTITY***	***LOCATION***
Finpile	1 Row	Bottom Rail
EPDM Gasket	1 Row	Head/Jamb/Sill: Sash Perimeter
EPDM Gasket	1 Row	Head/Jamb: Frame Perimeter

FRAME/SASH MATERIALS FINISH	
INTERIOR	Vinyl
EXTERIOR	Vinyl

VALIDATION MATRIX*	
PRODUCT LINE	***REPORT NUMBER***
None	-

**These products are part of a validation matrix. Only one is required for validation testing.*

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SECTION 5
SPECIALTY PRODUCTS TABLE

The specialty products method allows the manufacturer to determine the overall product SHGC and VT for any glazing option. The center of glass SHGC and/or VT must be determined using WINDOW 7.4.14. The method calculates overall product SHGC and VT indexed on center of glass properties. All values used in the calculations are truncated to six decimal place precision.

	No Dividers	Dividers < 1	Dividers > 1
SHGC0	0.004939	0.007805	0.010458
SHGC1	0.619009	0.534645	0.456578
VT0	0.000000	0.000000	0.000000
VT1	0.614071	0.526840	0.446120

$$SHGC = SHGC0 + SHGCc\ (SHGC1 - SHGC0)$$

$$VT = VT0 + VTc\ (VT1 - VT0)$$

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SECTION 6
SIMULATION RESULTS

TOTAL PRODUCT CALCULATIONS (GENEO In-Swing Vinyl Side Hinge Door with Aluminum Threshold)														
Option Number	Pane Thickness 1 (in)	Gap Width 1 (in)	Pane Thickness 2 (in)	Gap Width 2 (in)	Pane Thickness 3 (in)	Gap Width 3 (in)	Pane Thickness 4 (in)	Gap Fill	Low-e (Surface #)	Tint	Spacer	Grid Type
	U-Factor (Btu/Hr-Ft2-F)			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance (CR)	
1	E180 / ARG90 / CLR / ARG90 / E180 (3MM/3MM/3MM) - 1-3/8" IG											
	0.118	0.500	0.118	0.500	0.118			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.35 / 0.30**		**VT(N/<1)**	**0.43 / 0.37**	**CR**	**73**
2	E180 / ARG90 / CLR / ARG90 / E180 (5MM/5MM/5MM) - 1-3/8" IG											
	0.187	0.406	0.185	0.406	0.187			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N
	U-Factor		**0.19**	**SHGC(N)**			**0.33**		**VT(N)**	**0.42**	**CR**	**73**
3	E180 / ARG90 / CLR / ARG90 / E180 (5MM/5MM/5MM) - 1-3/8" IG											
	0.187	0.406	0.185	0.406	0.187			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	G
	U-Factor		**0.19**	**SHGC(<1)**			**0.29**		**VT(<1)**	**0.36**	**CR**	**73**
4	E180 / ARG90 / CLR / ARG90 / E180 (6MM/6MM/6MM) - 1-3/8" IG											
	0.223	0.313	0.224	0.313	0.223			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC(N)**			**0.32**		**VT(N)**	**0.41**	**CR**	**70**
5	E180 / ARG90 / CLR / ARG90 / E180 (6MM/6MM/6MM) - 1-3/8" IG											
	0.223	0.313	0.224	0.313	0.223			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	G
	U-Factor		**0.21**	**SHGC(<1)**			**0.28**		**VT(<1)**	**0.35**	**CR**	**70**
6	E272 / ARG90 / CLR / ARG90 / E272 (5MM/5MM/5MM) - 1-3/8" IG											
	0.187	0.406	0.185	0.406	0.187			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N
	U-Factor		**0.18**	**SHGC(N)**			**0.22**		**VT(N)**	**0.34**	**CR**	**73**
7	E272 / ARG90 / CLR / ARG90 / E272 (5MM/5MM/5MM) - 1-3/8" IG											
	0.187	0.406	0.185	0.406	0.187			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	G
	U-Factor		**0.18**	**SHGC(<1)**			**0.19**		**VT(<1)**	**0.29**	**CR**	**73**
8	E272 / ARG90 / CLR / ARG90 / E272 (6MM/6MM/6MM) - 1-3/8" IG											
	0.224	0.313	0.224	0.313	0.224			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC(N)**			**0.21**		**VT(N)**	**0.34**	**CR**	**70**
9	E272 / ARG90 / CLR / ARG90 / E272 (6MM/6MM/6MM) - 1-3/8" IG											
	0.224	0.313	0.224	0.313	0.224			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	G
	U-Factor		**0.20**	**SHGC(<1)**			**0.19**		**VT(<1)**	**0.29**	**CR**	**70**
10	E272 / ARG90 / LAMI030 (3MM/2.7MM|030 PVB|2.7MM) - 1" IG											
	0.117	0.594	0.243					ARG90	0.042(#2)	CL	SS-D	N,G
	U-Factor		**0.25**	**SHGC(N/<1)**			**0.25 / 0.22**		**VT(N/<1)**	**0.43 / 0.37**	**CR**	**63**

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
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SECTION 6 (Continued)
SIMULATION RESULTS

TOTAL PRODUCT CALCULATIONS (GENEO In-Swing Vinyl Side Hinge Door with Aluminum Threshold)														
Option Number	Pane Thickness 1 (in)	Gap Width 1 (in)	Pane Thickness 2 (in)	Gap Width 2 (in)	Pane Thickness 3 (in)	Gap Width 3 (in)	Pane Thickness 4 (in)	Gap Fill	Low-e (Surface #)	Tint	Spacer	Grid Type
	U-Factor (Btu/Hr-Ft2-F)			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance (CR)	
11	E180 / ARG90 / LAMI030 (3MM/2.7MM|030 PVB|2.7MM) - 1" IG											
	0.118	0.594	0.243					ARG90	0.068(#2)	CL	SS-D	N,G
	U-Factor		**0.26**	**SHGC(N/<1)**			**0.39 / 0.34**		**VT(N/<1)**	**0.48 / 0.41**	**CR**	**62**
12	E272 / ARG90 / LAMI090 (3MM/3MM|090 PVB|3MM) - 1" IG											
	0.117	0.531	0.324					ARG90	0.042(#2)	CL	SS-D	N,G
	U-Factor		**0.25**	**SHGC(N/<1)**			**0.25 / 0.22**		**VT(N/<1)**	**0.43 / 0.37**	**CR**	**62**
13	E180 / ARG90 / LAMI090 (3MM/3MM|090 PVB|3MM) - 1" IG											
	0.118	0.531	0.324					ARG90	0.068(#2)	CL	SS-D	N,G
	U-Factor		**0.25**	**SHGC(N/<1)**			**0.39 / 0.34**		**VT(N/<1)**	**0.47 / 0.41**	**CR**	**62**
14	E366 / ARG90 / CLR / ARG90 / E366 (5MM/5MM/5MM) - 1-3/8" IG											
	0.185	0.406	0.185	0.406	0.185			ARG90	0.020(#2) / 0.020(#5)	CL	SS-D	N
	U-Factor		**0.18**	**SHGC(N)**			**0.15**		**VT(N)**	**0.28**	**CR**	**73**
15	E366 / ARG90 / CLR / ARG90 / E366 (5MM/5MM/5MM) - 1-3/8" IG											
	0.185	0.406	0.185	0.406	0.185			ARG90	0.020(#2) / 0.020(#5)	CL	SS-D	G
	U-Factor		**0.18**	**SHGC(<1)**			**0.13**		**VT(<1)**	**0.24**	**CR**	**73**
16	E366 / ARG90 / CLR / ARG90 / E366 (6MM/6MM/6MM) - 1-3/8" IG											
	0.224	0.313	0.224	0.313	0.224			ARG90	0.020(#2) / 0.020(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC(N)**			**0.15**		**VT(N)**	**0.27**	**CR**	**71**
17	E366 / ARG90 / CLR / ARG90 / E366 (6MM/6MM/6MM) - 1-3/8" IG											
	0.224	0.313	0.224	0.313	0.224			ARG90	0.020(#2) / 0.020(#5)	CL	SS-D	G
	U-Factor		**0.20**	**SHGC(<1)**			**0.13**		**VT(<1)**	**0.24**	**CR**	**71**
18	E272 / ARG90 / CLR / ARG90 / E180 (3MM/3MM/3MM) - 1-3/8" IG											
	0.117	0.500	0.118	0.500	0.118			ARG90	0.042(#2) / 0.068(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.23 / 0.20**		**VT(N/<1)**	**0.39 / 0.33**	**CR**	**74**
19	E272 / ARG90 / CLR / ARG90 / E180 (5MM/5MM/5MM) - 1-3/8" IG											
	0.187	0.406	0.185	0.406	0.187			ARG90	0.042(#2) / 0.068(#5)	CL	SS-D	N
	U-Factor		**0.18**	**SHGC(N)**			**0.23**		**VT(N)**	**0.38**	**CR**	**73**
20	E272 / ARG90 / CLR / ARG90 / E180 (5MM/5MM/5MM) - 1-3/8" IG											
	0.187	0.406	0.185	0.406	0.187			ARG90	0.042(#2) / 0.068(#5)	CL	SS-D	G
	U-Factor		**0.19**	**SHGC(<1)**			**0.20**		**VT(<1)**	**0.32**	**CR**	**73**

130 Derry Court
York, Pennsylvania 17406

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SECTION 6 (Continued)
SIMULATION RESULTS

TOTAL PRODUCT CALCULATIONS (GENEO In-Swing Vinyl Side Hinge Door with Aluminum Threshold)

Option Number	Pane Thickness 1 (in)	Gap Width 1 (in)	Pane Thickness 2 (in)	Gap Width 2 (in)	Pane Thickness 3 (in)	Gap Width 3 (in)	Pane Thickness 4 (in)	Gap Fill	Low-e (Surface #)	Tint	Spacer	Grid Type
	U-Factor (Btu/Hr-Ft2-F)			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance (CR)	
21	E272 / ARG90 / CLR / ARG90 / E180 (6MM/6MM/6MM) - 1-3/8" IG											
	0.224	0.313	0.224	0.313	0.223			ARG90	0.042(#2) / 0.068(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC(N)**			**0.22**		**VT(N)**	**0.37**	**CR**	**70**
22	E272 / ARG90 / CLR / ARG90 / E180 (6MM/6MM/6MM) - 1-3/8" IG											
	0.224	0.313	0.224	0.313	0.223			ARG90	0.042(#2) / 0.068(#5)	CL	SS-D	G
	U-Factor		**0.21**	**SHGC(<1)**			**0.19**		**VT(<1)**	**0.32**	**CR**	**70**
23	E180 / ARG90 / CLR / ARG90 / E180 (3MM/3MM/3MM) - 1-3/4" IG											
	0.118	0.688	0.118	0.688	0.118			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.35 / 0.30**		**VT(N/<1)**	**0.43 / 0.37**	**CR**	**73**
24	E180 / ARG90 / CLR / ARG90 / E180 (5MM/5MM/5MM) - 1-3/4" IG											
	0.187	0.594	0.185	0.594	0.187			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.33 / 0.29**		**VT(N/<1)**	**0.42 / 0.36**	**CR**	**73**
25	E180 / ARG90 / CLR / ARG90 / E180 (6MM/6MM/6MM) - 1-3/4" IG											
	0.223	0.500	0.224	0.500	0.223			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N,G
	U-Factor		**0.18**	**SHGC(N/<1)**			**0.32 / 0.28**		**VT(N/<1)**	**0.41 / 0.35**	**CR**	**73**
26	E272 / ARG90 / CLR / ARG90 / E272 (3MM/3MM/3MM) - 1-3/4" IG											
	0.117	0.688	0.118	0.688	0.117			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.22 / 0.19**		**VT(N/<1)**	**0.35 / 0.30**	**CR**	**73**
27	E272 / ARG90 / CLR / ARG90 / E272 (5MM/5MM/5MM) - 1-3/4" IG											
	0.187	0.594	0.185	0.594	0.187			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.22 / 0.19**		**VT(N/<1)**	**0.34 / 0.29**	**CR**	**73**
28	E272 / ARG90 / CLR / ARG90 / E272 (6MM/6MM/6MM) - 1-3/4" IG											
	0.224	0.500	0.224	0.500	0.224			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.21 / 0.19**		**VT(N/<1)**	**0.34 / 0.29**	**CR**	**73**
29	E180 / ARG90 / CLR / ARG90 / E180 (5MM/3MM/6MM) - 1-3/8" IG											
	0.187	0.406	0.118	0.406	0.223			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N
	U-Factor		**0.19**	**SHGC(N)**			**0.34**		**VT(N)**	**0.42**	**CR**	**73**
30	E180 / ARG90 / CLR / ARG90 / E180 (5MM/3MM/6MM) - 1-3/8" IG											
	0.187	0.406	0.118	0.406	0.223			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	G
	U-Factor		**0.19**	**SHGC(<1)**			**0.29**		**VT(<1)**	**0.36**	**CR**	**73**

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SECTION 6 (Continued)
SIMULATION RESULTS

TOTAL PRODUCT CALCULATIONS (GENEO In-Swing Vinyl Side Hinge Door with Aluminum Threshold)

Option Number	Pane Thickness 1 (in)	Gap Width 1 (in)	Pane Thickness 2 (in)	Gap Width 2 (in)	Pane Thickness 3 (in)	Gap Width 3 (in)	Pane Thickness 4 (in)	Gap Fill	Low-e (Surface #)	Tint	Spacer	Grid Type
	U-Factor (Btu/Hr-Ft2-F)			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance (CR)	
31	E272 / ARG90 / CLR / ARG90 / E272 (5MM/3MM/6MM) - 1-3/8" IG											
	0.187	0.406	0.118	0.406	0.224			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N
	U-Factor		**0.18**	**SHGC(N)**			**0.22**		**VT(N)**	**0.34**	**CR**	**73**
32	E272 / ARG90 / CLR / ARG90 / E272 (5MM/3MM/6MM) - 1-3/8" IG											
	0.187	0.406	0.118	0.406	0.224			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	G
	U-Factor		**0.18**	**SHGC(<1)**			**0.19**		**VT(<1)**	**0.30**	**CR**	**73**
33	E180 / ARG90 / CLR / ARG90 / E180-LAMI030 (5MM/3MM/2.7MM|030 PVB|2.7MM) - 1-3/8" IG											
	0.187	0.391	0.118	0.391	0.250			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N
	U-Factor		**0.19**	**SHGC(N)**			**0.33**		**VT(N)**	**0.42**	**CR**	**73**
34	E180 / ARG90 / CLR / ARG90 / E180-LAMI030 (5MM/3MM/2.7MM|030 PVB|2.7MM) - 1-3/8" IG											
	0.187	0.391	0.118	0.391	0.250			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	G
	U-Factor		**0.19**	**SHGC(<1)**			**0.29**		**VT(<1)**	**0.36**	**CR**	**73**
35	E272 / ARG90 / CLR / ARG90 / E272-LAMI030 (5MM/3MM/2.7MM|030 PVB|2.7MM) - 1-3/8" IG											
	0.187	0.391	0.118	0.391	0.227			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N
	U-Factor		**0.18**	**SHGC(N)**			**0.22**		**VT(N)**	**0.34**	**CR**	**73**
36	E272 / ARG90 / CLR / ARG90 / E272-LAMI030 (5MM/3MM/2.7MM|030 PVB|2.7MM) - 1-3/8" IG											
	0.187	0.391	0.118	0.391	0.227			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	G
	U-Factor		**0.19**	**SHGC(<1)**			**0.19**		**VT(<1)**	**0.30**	**CR**	**73**
37	E180 / ARG90 / CLR / ARG90 / E180-LAMI030 (5MM/3MM/3.1MM|030 PVB|3.1MM) - 1-3/8" IG											
	0.187	0.359	0.118	0.359	0.326			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N
	U-Factor		**0.19**	**SHGC(N)**			**0.33**		**VT(N)**	**0.42**	**CR**	**73**
38	E180 / ARG90 / CLR / ARG90 / E180-LAMI030 (5MM/3MM/3.1MM|030 PVB|3.1MM) - 1-3/8" IG											
	0.187	0.359	0.118	0.359	0.326			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	G
	U-Factor		**0.20**	**SHGC(<1)**			**0.29**		**VT(<1)**	**0.36**	**CR**	**73**
39	E272 / ARG90 / CLR / ARG90 / E272-LAMI030 (5MM/3MM/3.1MM|030 PVB|3.1MM) - 1-3/8" IG											
	0.187	0.359	0.118	0.359	0.325			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N
	U-Factor		**0.19**	**SHGC(N)**			**0.22**		**VT(N)**	**0.34**	**CR**	**73**
40	E272 / ARG90 / CLR / ARG90 / E272-LAMI030 (5MM/3MM/3.1MM|030 PVB|3.1MM) - 1-3/8" IG											
	0.187	0.359	0.118	0.359	0.325			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	G
	U-Factor		**0.19**	**SHGC(<1)**			**0.19**		**VT(<1)**	**0.29**	**CR**	**73**

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
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SECTION 6 (Continued)
SIMULATION RESULTS

TOTAL PRODUCT CALCULATIONS (GENEO In-Swing Vinyl Side Hinge Door with Aluminum Threshold)

Option Number	Pane Thickness 1 (in)	Gap Width 1 (in)	Pane Thickness 2 (in)	Gap Width 2 (in)	Pane Thickness 3 (in)	Gap Width 3 (in)	Pane Thickness 4 (in)	Gap Fill	Low-e (Surface #)	Tint	Spacer	Grid Type
	U-Factor (Btu/Hr-Ft2-F)			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance (CR)	
41	E180 / ARG90 / CLR / ARG90 / E180-LAMI030 (6MM/3MM/2.7MM|030 PVB|2.7MM) - 1-3/8" IG											
	0.223	0.359	0.118	0.359	0.250			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N
	U-Factor		**0.19**	**SHGC(N)**			**0.33**		**VT(N)**	**0.42**	**CR**	**72**
42	E180 / ARG90 / CLR / ARG90 / E180-LAMI030 (6MM/3MM/2.7MM|030 PVB|2.7MM) - 1-3/8" IG											
	0.223	0.359	0.118	0.359	0.250			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	G
	U-Factor		**0.20**	**SHGC(<1)**			**0.28**		**VT(<1)**	**0.36**	**CR**	**72**
43	E272 / ARG90 / CLR / ARG90 / E272-LAMI030 (6MM/3MM/2.7MM|030 PVB|2.7MM) - 1-3/8" IG											
	0.224	0.359	0.118	0.359	0.227			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N
	U-Factor		**0.19**	**SHGC(N)**			**0.21**		**VT(N)**	**0.34**	**CR**	**73**
44	E272 / ARG90 / CLR / ARG90 / E272-LAMI030 (6MM/3MM/2.7MM|030 PVB|2.7MM) - 1-3/8" IG											
	0.224	0.359	0.118	0.359	0.227			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	G
	U-Factor		**0.19**	**SHGC(<1)**			**0.19**		**VT(<1)**	**0.29**	**CR**	**73**
45	E180 / ARG90 / CLR / ARG90 / E180-LAMI030 (6MM/3MM/3.1MM|030 PVB|3.1MM) - 1-3/8" IG											
	0.223	0.328	0.118	0.328	0.326			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC(N)**			**0.33**		**VT(N)**	**0.41**	**CR**	**72**
46	E180 / ARG90 / CLR / ARG90 / E180-LAMI030 (6MM/3MM/3.1MM|030 PVB|3.1MM) - 1-3/8" IG											
	0.223	0.328	0.118	0.328	0.326			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	G
	U-Factor		**0.20**	**SHGC(<1)**			**0.28**		**VT(<1)**	**0.36**	**CR**	**72**
47	E272 / ARG90 / CLR / ARG90 / E272-LAMI030 (6MM/3MM/3.1MM|030 PVB|3.1MM) - 1-3/8" IG											
	0.224	0.328	0.118	0.328	0.325			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N
	U-Factor		**0.19**	**SHGC(N)**			**0.21**		**VT(N)**	**0.34**	**CR**	**72**
48	E272 / ARG90 / CLR / ARG90 / E272-LAMI030 (6MM/3MM/3.1MM|030 PVB|3.1MM) - 1-3/8" IG											
	0.224	0.328	0.118	0.328	0.325			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	G
	U-Factor		**0.20**	**SHGC(<1)**			**0.19**		**VT(<1)**	**0.29**	**CR**	**72**
49	E180 / ARG90 / CLR / ARG90 / E180-LAMI030 (5MM/3MM/2.7MM|030 PVB|2.7MM) - 1-3/4" IG											
	0.187	0.578	0.118	0.578	0.250			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.33 / 0.29**		**VT(N/<1)**	**0.42 / 0.36**	**CR**	**73**
50	E272 / ARG90 / CLR / ARG90 / E272-LAMI030 (5MM/3MM/2.7MM|030 PVB|2.7MM) - 1-3/4" IG											
	0.187	0.578	0.118	0.578	0.227			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.22 / 0.19**		**VT(N/<1)**	**0.34 / 0.30**	**CR**	**73**

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York, Pennsylvania 17406

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SECTION 6 (Continued)
SIMULATION RESULTS

TOTAL PRODUCT CALCULATIONS (GENEO In-Swing Vinyl Side Hinge Door with Aluminum Threshold)

Option Number	Pane Thickness 1 (in)	Gap Width 1 (in)	Pane Thickness 2 (in)	Gap Width 2 (in)	Pane Thickness 3 (in)	Gap Width 3 (in)	Pane Thickness 4 (in)	Gap Fill	Low-e (Surface #)	Tint	Spacer	Grid Type
	U-Factor (Btu/Hr-Ft2-F)			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance (CR)	
51	E180 / ARG90 / CLR / ARG90 / E180-LAMI030 (5MM/3MM/3.1MM|030 PVB|3.1MM) - 1-3/4" IG											
	0.187	0.547	0.118	0.547	0.326			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.33 / 0.29**		**VT(N/<1)**	**0.42 / 0.36**	**CR**	**73**
52	E272 / ARG90 / CLR / ARG90 / E272-LAMI030 (5MM/3MM/3.1MM|030 PVB|3.1MM) - 1-3/4" IG											
	0.187	0.547	0.118	0.547	0.325			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.22 / 0.19**		**VT(N/<1)**	**0.34 / 0.29**	**CR**	**73**
53	E180 / ARG90 / CLR / ARG90 / E180-LAMI030 (6MM/3MM/2.7MM|030 PVB|2.7MM) - 1-3/4" IG											
	0.223	0.547	0.118	0.547	0.250			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.33 / 0.28**		**VT(N/<1)**	**0.42 / 0.36**	**CR**	**73**
54	E272 / ARG90 / CLR / ARG90 / E272-LAMI030 (6MM/3MM/2.7MM|030 PVB|2.7MM) - 1-3/4" IG											
	0.224	0.547	0.118	0.547	0.227			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.21 / 0.19**		**VT(N/<1)**	**0.34 / 0.29**	**CR**	**73**
55	E180 / ARG90 / CLR / ARG90 / E180-LAMI030 (6MM/3MM/3.1MM|030 PVB|3.1MM) - 1-3/4" IG											
	0.223	0.516	0.118	0.516	0.326			ARG90	0.068(#2) / 0.068(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.33 / 0.28**		**VT(N/<1)**	**0.41 / 0.36**	**CR**	**73**
56	E272 / ARG90 / CLR / ARG90 / E272-LAMI030 (6MM/3MM/3.1MM|030 PVB|3.1MM) - 1-3/4" IG											
	0.224	0.516	0.118	0.516	0.325			ARG90	0.042(#2) / 0.042(#5)	CL	SS-D	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.21 / 0.19**		**VT(N/<1)**	**0.34 / 0.29**	**CR**	**73**
57	E272 / ARG90 / CLR (3MM/3MM) - 1" IG											
	0.117	0.750	0.118					ARG90	0.042(#2)	CL	SS-D	N,G
	U-Factor		**0.26**	**SHGC(N/<1)**			**0.26 / 0.23**		**VT(N/<1)**	**0.44 / 0.38**	**CR**	**63**
58	E272 / ARG90 / CLR (5MM/5MM) - 1" IG											
	0.187	0.625	0.185					ARG90	0.042(#2)	CL	SS-D	N,G
	U-Factor		**0.26**	**SHGC(N/<1)**			**0.25 / 0.22**		**VT(N/<1)**	**0.43 / 0.37**	**CR**	**62**
59	E272 / ARG90 / CLR (6MM/6MM) - 1" IG											
	0.224	0.500	0.224					ARG90	0.042(#2)	CL	SS-D	N,G
	U-Factor		**0.25**	**SHGC(N/<1)**			**0.25 / 0.22**		**VT(N/<1)**	**0.43 / 0.37**	**CR**	**61**
60	SB60 / ARG90 / CLR / ARG90 / SB60 (3MM/3MM/3MM) 1-3/8" IG											
	0.129	0.500	0.129	0.500	0.129			ARG90	0.035(#2) / 0.035(#5)	CL	ZF-S	N,G
	U-Factor		**0.17**	**SHGC(N/<1)**			**0.21 / 0.19**		**VT(N/<1)**	**0.36 / 0.31**	**CR**	**74**

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York, Pennsylvania 17406

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Facsimile: 717-764-4129
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SECTION 6 (Continued)
SIMULATION RESULTS

TOTAL PRODUCT CALCULATIONS (GENEO In-Swing Vinyl Side Hinge Door with Aluminum Threshold)

Option Number	Pane Thickness 1 (in)	Gap Width 1 (in)	Pane Thickness 2 (in)	Gap Width 2 (in)	Pane Thickness 3 (in)	Gap Width 3 (in)	Pane Thickness 4 (in)	Gap Fill	Low-e (Surface #)	Tint	Spacer	Grid Type
	U-Factor (Btu/Hr-Ft2-F)			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance (CR)	
61	SB60 / ARG90 / CLR / ARG90 / SB60 (5MM/5MM/5MM) 1-3/8" IG											
	0.184	0.406	0.184	0.406	0.184			ARG90	0.035(#2) / 0.035(#5)	CL	ZF-S	N
	U-Factor		**0.18**	**SHGC(N)**			**0.21**		**VT(N)**	**0.35**	**CR**	**74**
62	SB60 / ARG90 / CLR / ARG90 / SB60 (5MM/5MM/5MM) 1-3/8" IG											
	0.184	0.406	0.184	0.406	0.184			ARG90	0.035(#2) / 0.035(#5)	CL	ZF-S	G
	U-Factor		**0.18**	**SHGC(<1)**			**0.18**		**VT(<1)**	**0.30**	**CR**	**74**
63	SB60 / ARG90 / CLR / ARG90 / SB60 (6MM/6MM/6MM) 1-3/8" IG											
	0.223	0.313	0.223	0.313	0.223			ARG90	0.035(#2) / 0.035(#5)	CL	ZF-S	N
	U-Factor		**0.20**	**SHGC(N)**			**0.21**		**VT(N)**	**0.34**	**CR**	**72**
64	SB60 / ARG90 / CLR / ARG90 / SB60 (6MM/6MM/6MM) 1-3/8" IG											
	0.223	0.313	0.223	0.313	0.223			ARG90	0.035(#2) / 0.035(#5)	CL	ZF-S	G
	U-Factor		**0.20**	**SHGC(<1)**			**0.18**		**VT(<1)**	**0.30**	**CR**	**72**
65	SB70 / ARG90 / CLR / ARG90 / SB60 (3MM/3MM/3MM) 1-3/8" IG											
	0.129	0.500	0.129	0.500	0.129			ARG90	0.018(#2) / 0.035(#5)	CL	ZF-S	N,G
	U-Factor		**0.16**	**SHGC(N/<1)**			**0.15 / 0.13**		**VT(N/<1)**	**0.31 / 0.27**	**CR**	**74**
66	SB70 / ARG90 / CLR / ARG90 / SB60 (5MM/5MM/5MM) 1-3/8" IG											
	0.184	0.406	0.184	0.406	0.184			ARG90	0.018(#2) / 0.035(#5)	CL	ZF-S	N
	U-Factor		**0.17**	**SHGC(N)**			**0.15**		**VT(N)**	**0.32**	**CR**	**74**
67	SB70 / ARG90 / CLR / ARG90 / SB60 (5MM/5MM/5MM) 1-3/8" IG											
	0.184	0.406	0.184	0.406	0.184			ARG90	0.018(#2) / 0.035(#5)	CL	ZF-S	G
	U-Factor		**0.18**	**SHGC(<1)**			**0.14**		**VT(<1)**	**0.28**	**CR**	**74**
68	SB70 / ARG90 / CLR / ARG90 / SB60 (6MM/6MM/6MM) 1-3/8" IG											
	0.223	0.313	0.223	0.313	0.223			ARG90	0.018(#2) / 0.035(#5)	CL	ZF-S	N
	U-Factor		**0.19**	**SHGC(N)**			**0.16**		**VT(N)**	**0.32**	**CR**	**72**
69	SB70 / ARG90 / CLR / ARG90 / SB60 (6MM/6MM/6MM) 1-3/8" IG											
	0.223	0.313	0.223	0.313	0.223			ARG90	0.018(#2) / 0.035(#5)	CL	ZF-S	G
	U-Factor		**0.20**	**SHGC(<1)**			**0.14**		**VT(<1)**	**0.27**	**CR**	**72**
70	SB60 / ARG90 / CLR / ARG90 / SB70 (3MM/3MM/3MM) 1-3/8" IG											
	0.129	0.500	0.129	0.500	0.129			ARG90	0.035(#2) / 0.018(#5)	CL	ZF-S	N,G
	U-Factor		**0.16**	**SHGC(N/<1)**			**0.19 / 0.16**		**VT(N/<1)**	**0.31 / 0.27**	**CR**	**74**

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York, Pennsylvania 17406

Telephone: 717-764-7700
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SECTION 6 (Continued)
SIMULATION RESULTS

TOTAL PRODUCT CALCULATIONS (GENEO In-Swing Vinyl Side Hinge Door with Aluminum Threshold)													
Option Number	Pane Thickness 1 (in)	Gap Width 1 (in)	Pane Thickness 2 (in)	Gap Width 2 (in)	Pane Thickness 3 (in)	Gap Width 3 (in)	Pane Thickness 4 (in)	Gap Fill	Low-e (Surface #)	Tint	Spacer	Grid Type
	U-Factor (Btu/Hr-Ft2-F)			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance (CR)	
71	SB60 / ARG90 / CLR / ARG90 / SB70 (5MM/5MM/5MM) 1-3/8" IG											
	0.184	0.406	0.184	0.406	0.184			ARG90	0.035(#2) / 0.018(#5)	CL	ZF-S	N
	U-Factor		**0.17**	**SHGC(N)**			**0.18**		**VT(N)**	**0.32**	**CR**	**74**
72	SB60 / ARG90 / CLR / ARG90 / SB70 (5MM/5MM/5MM) 1-3/8" IG											
	0.184	0.406	0.184	0.406	0.184			ARG90	0.035(#2) / 0.018(#5)	CL	ZF-S	G
	U-Factor		**0.18**	**SHGC(<1)**			**0.16**		**VT(<1)**	**0.28**	**CR**	**74**
73	SB60 / ARG90 / CLR / ARG90 / SB70 (6MM/6MM/6MM) 1-3/8" IG											
	0.223	0.313	0.223	0.313	0.223			ARG90	0.035(#2) / 0.018(#5)	CL	ZF-S	N
	U-Factor		**0.19**	**SHGC(N)**			**0.18**		**VT(N)**	**0.32**	**CR**	**72**
74	SB60 / ARG90 / CLR / ARG90 / SB70 (6MM/6MM/6MM) 1-3/8" IG											
	0.223	0.313	0.223	0.313	0.223			ARG90	0.035(#2) / 0.018(#5)	CL	ZF-S	G
	U-Factor		**0.20**	**SHGC(<1)**			**0.16**		**VT(<1)**	**0.27**	**CR**	**72**

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Facsimile: 717-764-4129
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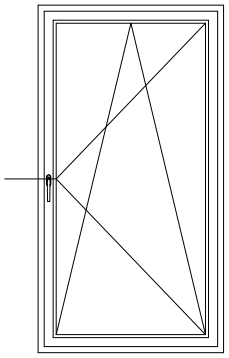
SECTION 7
DRAWINGS / BILL OF MATERIALS

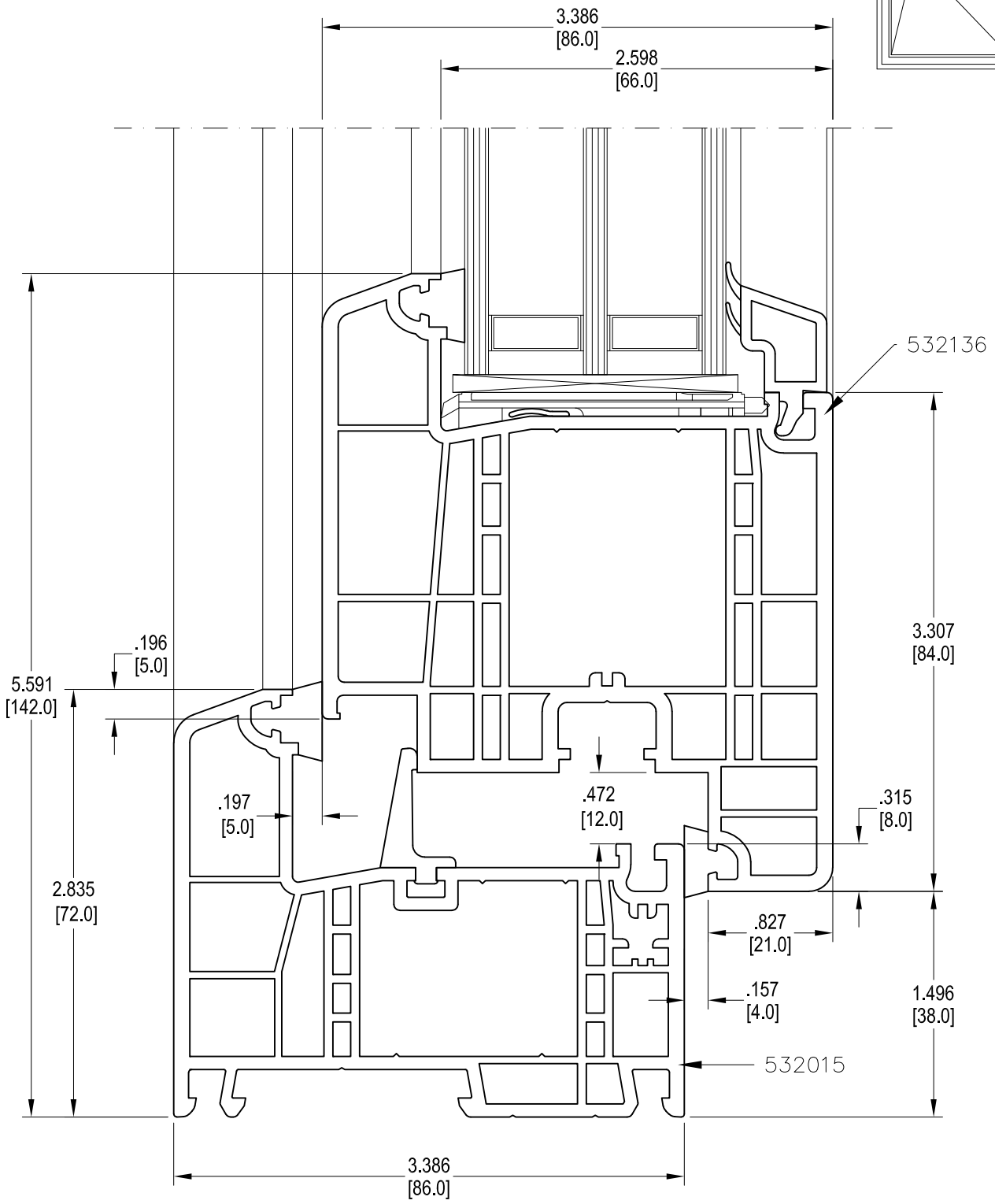
The drawings which follow have been reviewed by Intertek B&C and are representative of the simulation results reported herein. Any deviations are documented herein or on the drawings.

REHAU System GENEO (Draft)

DETAIL DRAWINGS

Frame 72 with Sash Z 84

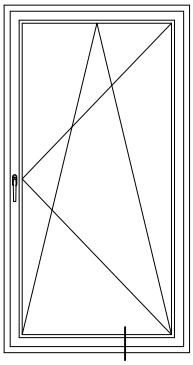


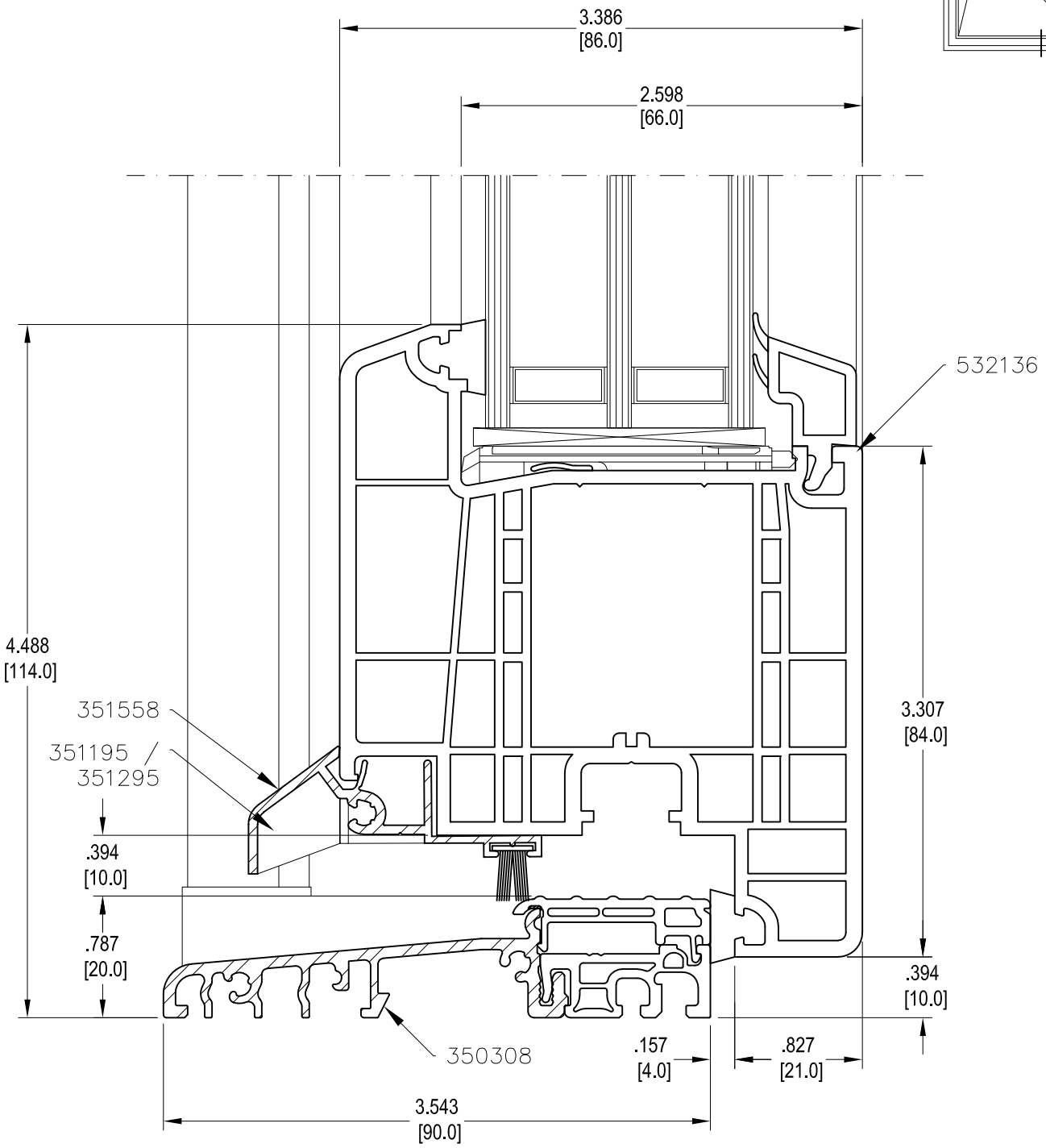


REHAU System GENEO (Draft)

DETAIL DRAWINGS

Aluminum Threshold with Sash Z 84 (clearance 10mm)





Test Specimen Complies With
These Details Any Deviation is Noted
NCTL-110-19494-1 By:SJD
Date:1/12/17

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Total Quality. Assured.

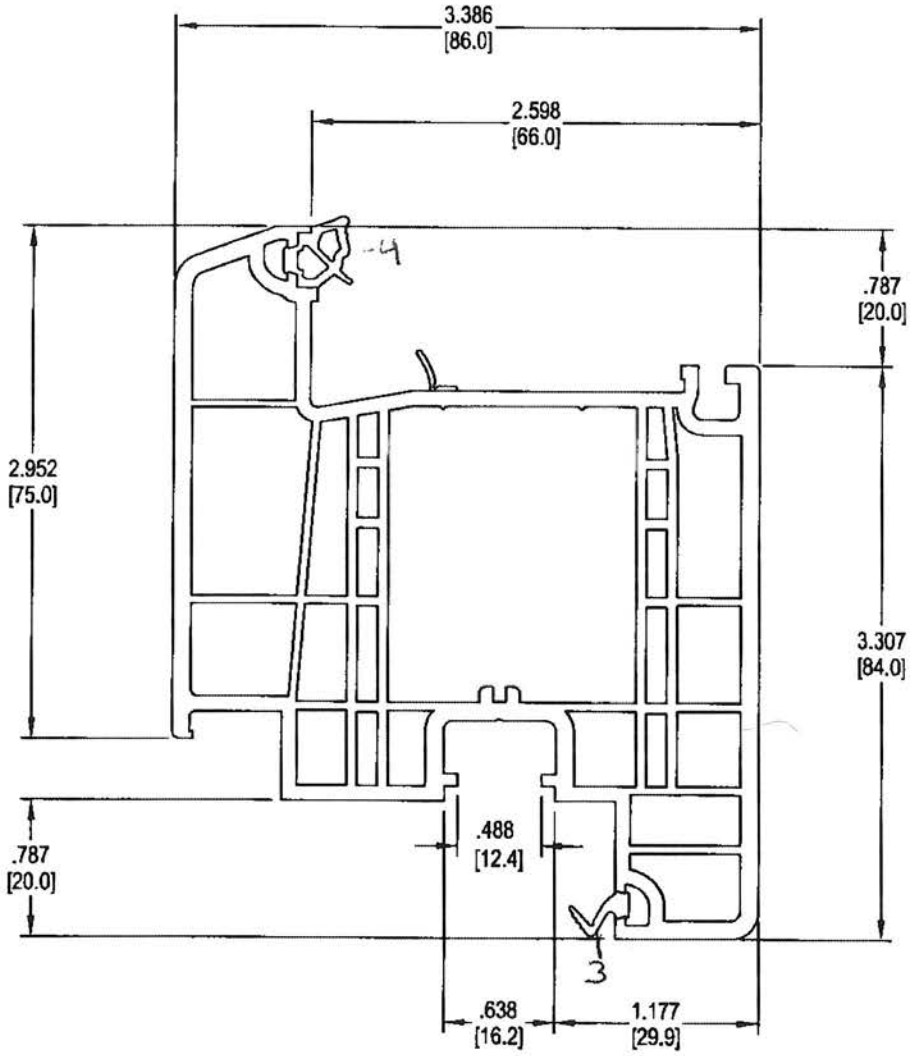
Report #: M4002-116-45
Date: 11/16/21
Verified by: Allison M Ford

GENO SIDE HINGE IN-SWING DOOR (ALUM. THRESHOLD) BOM

Part Number	Part Name	Material
2412-16-067	INSWING DOOR W/ ALUM. THRESHOLD HING REINFORCED	N/A
2412-16-067	INSWING DOOR W/ ALUM. THRESHOLD SASH REINFORCED	N/A
TDS_532136	SASH Z 84	RIGID PVC
TDS_532015	FRAME 72	RIGID PVC
TDS_350308	IN-SWING ALUMINUM DOOR THRESHOLD	ANODIZED ALUM.
TDS_351558	WEATHER RAIL	ANODIZED ALUM.
TDS_238570	SASH REINFORCEMENT Hinge	GALVANIZED STEEL
TDS_244536	HINGE FRAME REINFORCEMENT	GALVANIZED STEEL
TDS_560510	22.5MM GLAZING BEAD	RIGID PVC
TDS_561530	34.5MM GLAZING BEAD	RIGID PVC
2412-16-067	34.5MM GLAZING BEAD W/ 1" GLASS	RIGID PVC
1	FRAME GASKET	FLEX. PVC
2	FRAME GASKET 2	EPDM
3	FRAME GASKET 3	EPDM
4	EOG EXTERIOR WEATHER SEAL	EPDM
5	3/16" X 3/8" GRID	PAINTED ALUM.

Test Specimen Complies With
These Details Any Deviation is Noted
~~NCTL 110~~ 14-111-12 By: SJD
Date: 1-12-17

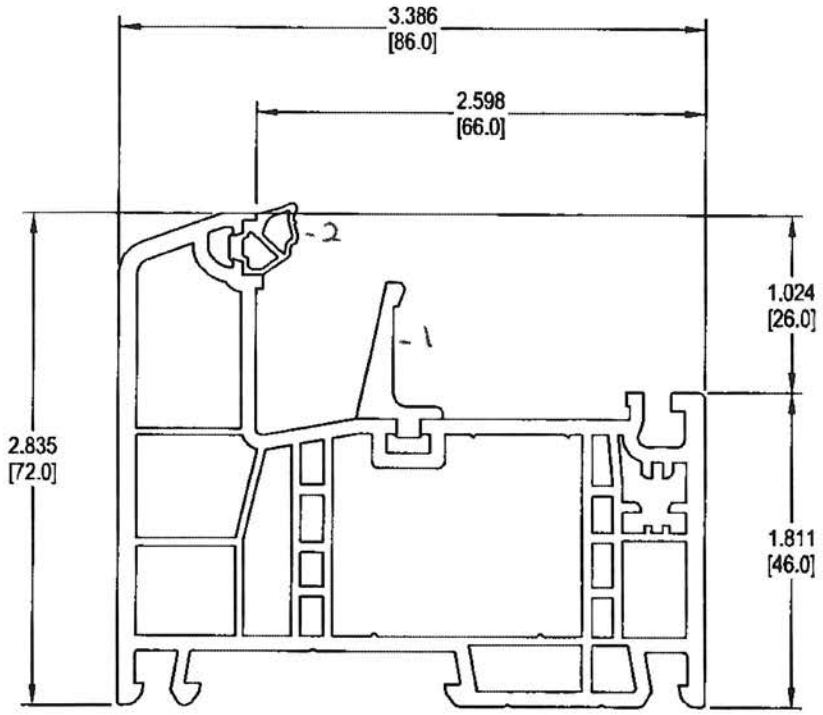
Art. 532136
Sash Z 84



		REHAU	System: Geneo		
			Title: Sash Z 84 (Art. 532136)		
		REHAU Construction LLC 1501 Edwards Ferry Road, NE Leesburg, Virginia 20176 Tel: (703) 777-5255	Date: 09/28/2016	Scale: 1:1	Drawn by: JWB
				Drawing No.: TDS_532136	Rev.:
-	-		© 2016 REHAU. Do not disclose without written permission		
Rev #	Revision Description & Date				

Test Specimen Complies With
These Details Any Deviation is Noted
~~NCTL 110~~ 10-1-44-1, 2 By: SJO
Date: 1-12-17

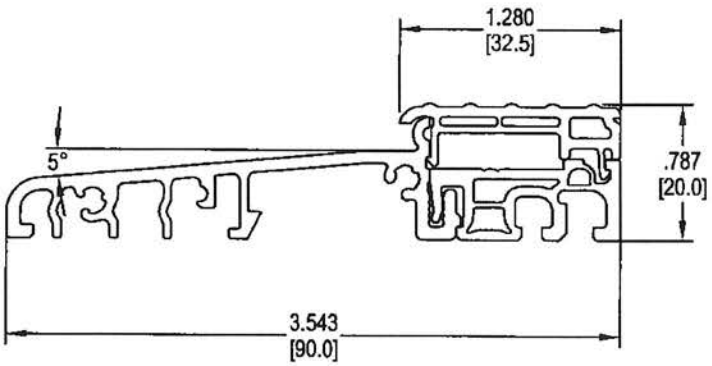
Art. 532015
Frame 72



		REHAU	System: Geneo		
			Title: Frame 72 (Art. 532015)		
		REHAU Construction LLC 1501 Edwards Ferry Road, NE Leesburg, Virginia 20176 Tel: (703) 777-5255	Date: 08/28/2014	Scale: 1:1	Drawn by: JWB
				Drawing No.: TDS_532015	Rev.:
Rev #	Revision Description & Date				

Test Specimen Complies With
These Details Any Deviation is Noted
~~NCTL 110~~ 1544(4)-1 By: ESD
Date: 1-12-17

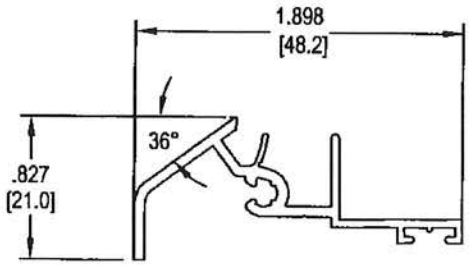
Art. 350308
Aluminum Door Threshold
inward opening



		REHAU	System: GENEO
			Title: Aluminum Door Threshold (Art. 350308) inward opening
		REHAU Construction LLC 1501 Edwards Ferry Road, NE Leesburg, Virginia 20176 Tel: (703) 777-5255	Date: 11/20/2013 | Scale: 1:1 | Drawn by: JWB
			Drawing No.: TDS_350308 | Rev.:
-	-		
Rev #	Revision Description & Date		© 2013 REHAU. Do not disclose without written permission

Test Specimen Complies With
These Details Any Deviation is Noted
~~NCTL 110 19444-1~~ By: ~~GJD~~
Date: 1-12-17

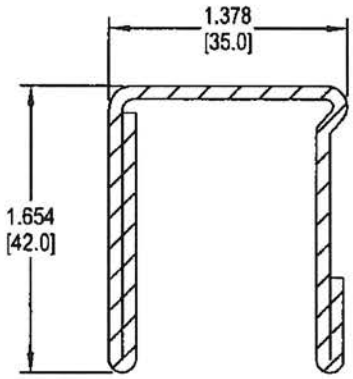
Art. 351558
Weather Rail 21



		REHAU	System: GENEO		
			Title: Weather Rail 21 (Art. 351558)		
		REHAU Construction LLC 1501 Edwards Ferry Road, NE Leesburg, Virginia 20176 Tel: (703) 777-5255	Date: 11/20/2013	Scale: 1:1	Drawn by: JWB
				Drawing No.: TDS_351558	Rev.:
-	-				
Rev #	Revision Description & Date				

Test Specimen Complies With
These Details Any Deviation is Noted
~~NGTL 118~~ 19441.2 By: SJD
Date: 1-12-17

Art. 238570
Reinforcement

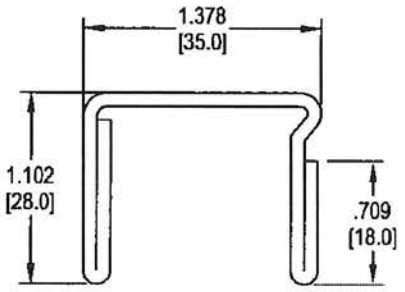


Sash hinge side

		REHAU	System: 4500		
			Title: Reinforcement (Art. 238570)		
		REHAU Construction LLC 1501 Edwards Ferry Road, NE Leesburg, Virginia 20176 Tel. (703) 777-5255	Date: 02/24/2015	Scale: 1:1	Drawn by: JWB
				Drawing No.: TDS_238570	Rev.:
-	-				
Rev #	Revision Description & Date				

Test Specimen Complies With
These Details Any Deviation is Noted
NCTL 110 19444,1,2 By: SJD
Date: 1-12-17

Art. 244536
Steel Reinforcement 35x28x2



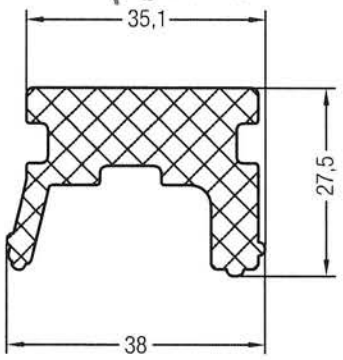
Frame hinge side

		REHAU	System: 4500		
			Title: Steel Reinforcement 35x28x2 (Art. 244536)		
		REHAU Construction LLC 1501 Edwards Ferry Road, NE Leesburg, Virginia 20176 Tel: (703) 777-5255	Date: 09/09/2013	Scale: 1:1	Drawn by: JWB
-	-			Drawing No.: TDS_244536	Rev.:
Rev #	Revision Description & Date				

GENEO®
PROFILE PRINT

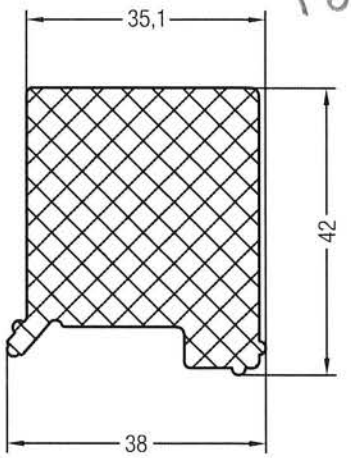
Thermo Module (TM)

532015 Frame Foam

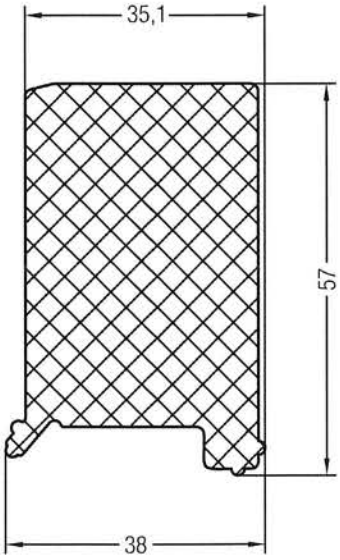


TM 1.38 x 1.10 in (35 x 28 mm)
EPS
1260013
164 ft (50 m)

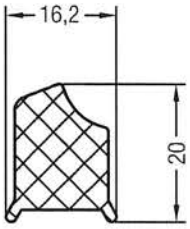
532136 sash Foam



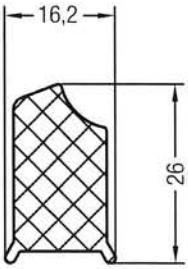
TM 1.38 x 1.65 in (35 x 42 mm)
EPS
1260023
164 ft (50 m)



TM 35 x 57
EPS
1260043
164 ft (50 m)



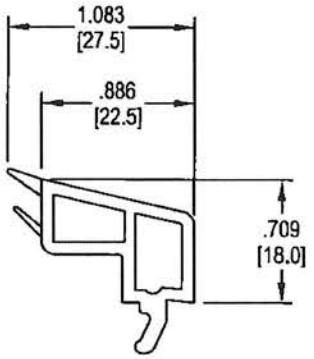
TM Sash
EPS
1353336
164 ft (50 m)



TM Frame/T-mullion
EPS
1353337
164 ft (50 m)

Test Specimen Complies With
These Details Any Deviation is Noted
~~NGTL 110~~ ~~19464-1,2~~ By: ~~SJD~~
Date: 1-12-17

Art. 560510
22.5 mm Glazing Stop

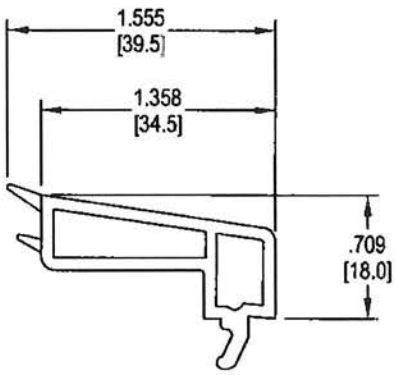


1 3/8 I.G.

		REHAU	System: 9000		
			Title: 22.5 mm Glazing Stop (Art. 560510)		
		REHAU Construction LLC 1501 Edwards Ferry Road, NE Leesburg, Virginia 20176 Tel: (703) 777-5255	Date: 09/29/2014	Scale: 1:1	Drawn by: JWB
				Drawing No.: TDS_560510	Rev.:
-	-				
Rev #	Revision Description & Date				

Test Specimen Complies With
These Details Any Deviation is Noted
NCTL 118 ~~3(4)(4)(1),2~~ By: ~~SJD~~
Date: 1-12-17

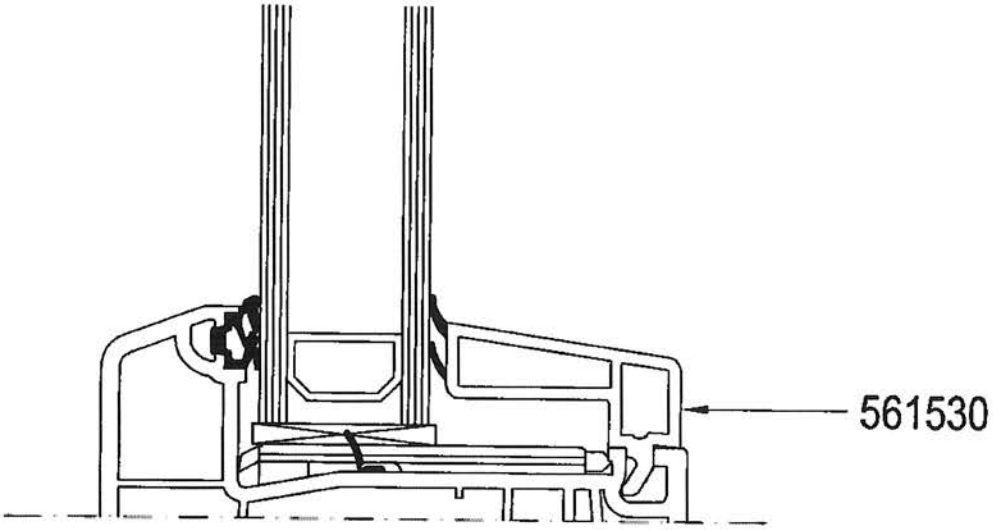
Art. 561530
34.5 mm Glazing Stop



1" I.G.

		REHAU	System: 9000		
			Title: 34.5 mm Glazing Stop (Art. 561530)		
		REHAU Construction LLC 1501 Edwards Ferry Road, NE Leesburg, Virginia 20176 Tel: (703) 777-5255	Date: 10/21/2014	Scale: 1:1	Drawn by: JWB
				Drawing No.: TDS_561530	Rev.:
-	-				
Rev #	Revision Description & Date				

Test Specimen Complies With
These Details Any Deviation is Noted
NCTL-110- 10494-1,2 By SJD
Date: 1-12-17

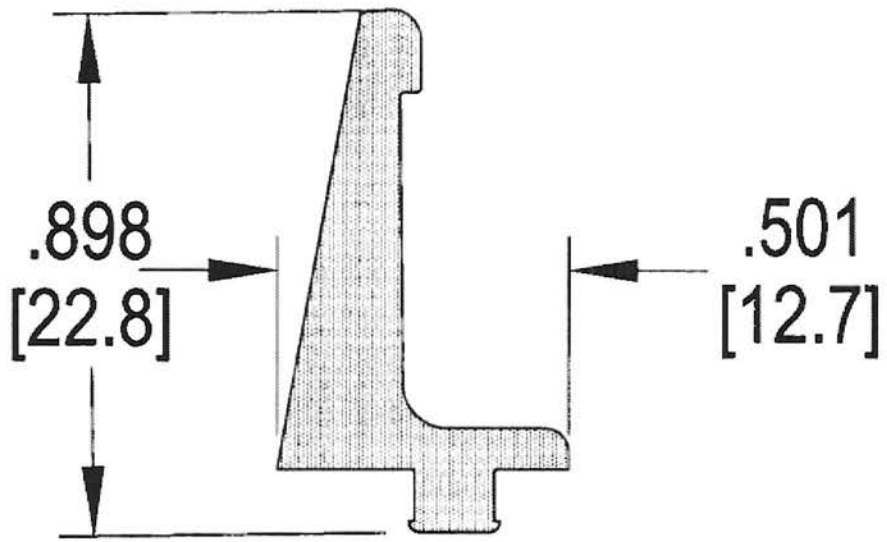


Rev #	Revision Description & Date
-	-

REHAU Construction LLC
1501 Edwards Ferry Road. NE
Leesburg, Virginia 20176
Tel: (703) 777-5255

System: Geneo
Title: 1" Glass Option
Date: 09/29/2016 | Scale: 1:2 | Drawn by: JWB
Drawing No.: 2412-16-067 | Rev.:

Test Specimen Complies With
These Details Any Deviation is Noted
NCTL-110- 19444-1,2 By: SSD
Date: 1-12-17



intertek
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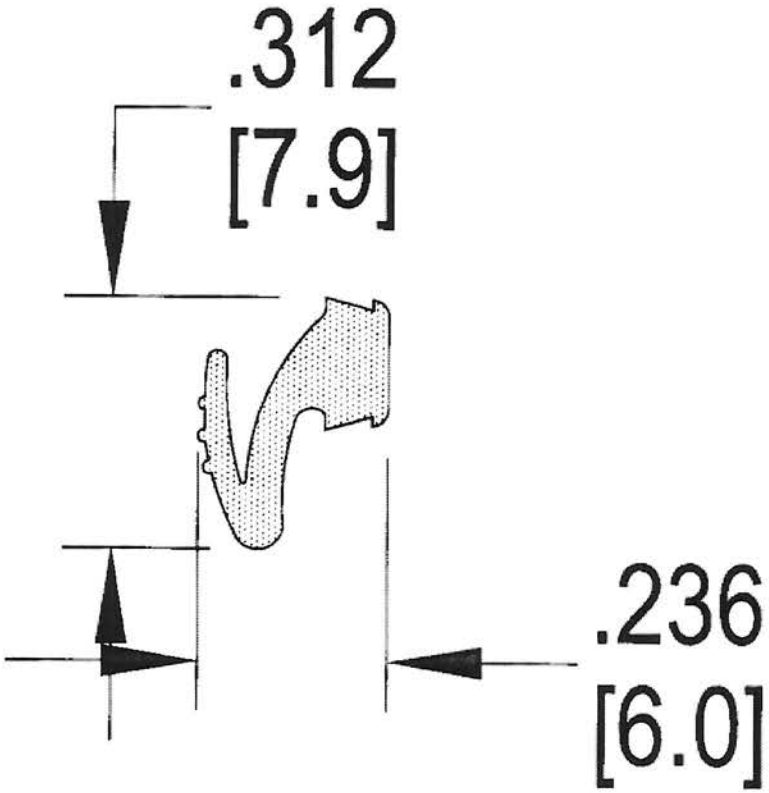
Report #: M4002-116-45
Date: 11/16/21
Verified by: Allison M Ford

7

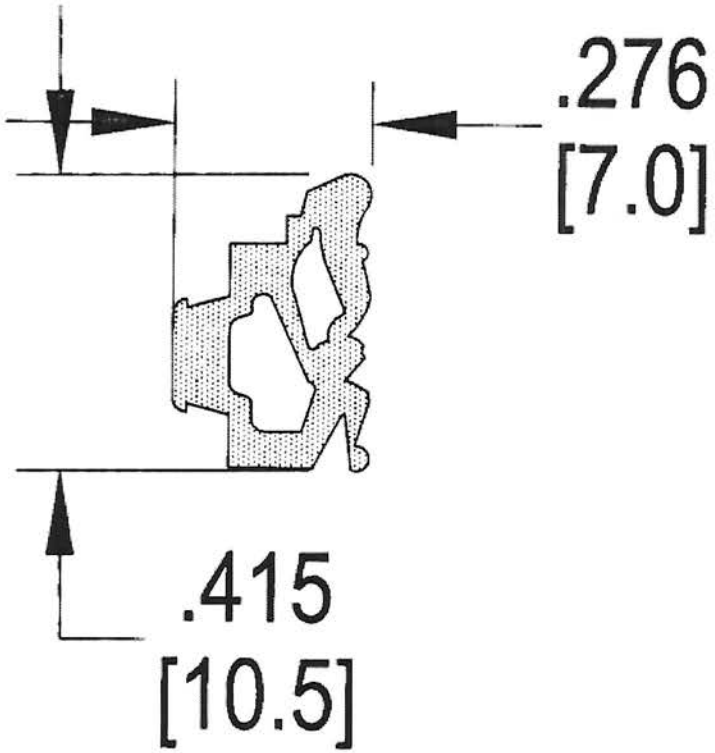
Test Specimen Complies With
These Details Any Deviation is Noted
NCTL-110- 14444-1.2 By: SSP
Date: 1-12-17

M

Test Specimen Complies With
These Details Any Deviation is Noted
NCTL-110 1446-1, 2 By: SSD
Date: 1-12-17



J



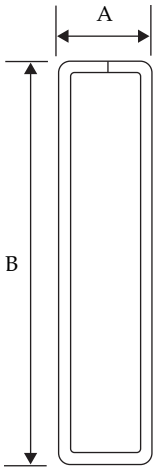
Test Specimen Complies With
These Details Any Deviation is Noted
NCTL-110- 19449-12 By: SJD
Date: 1-12-17

MB

ALLMETAL®

Muntin Bar

Aluminum: Painted, ~~Mill Finish, Clear & Color-In™ Anodized~~



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Report #:	M4002-116-45
Date:	11/16/21
Verified by:	Allison M Ford

TOLERANCE
A, ± .005 (.127mm)
B, ± .005 (.127mm)

SPECIAL NOTICE
Cleaning and Handling of Muntin Bar

We recommend muntin bar to be wiped clean before installation into an insulating glass unit. A household grade liquid cleaner may be used for this purpose.

To avoid breakdown of painted surfaces, do not use M.E.K., Triethane, Alcohol or like substances for the cleaning of painted muntin bar.

When machining and processing muntin bar in your plant, keep saw tables and work areas free of saw cut filings to avoid scratching the painted surfaces.

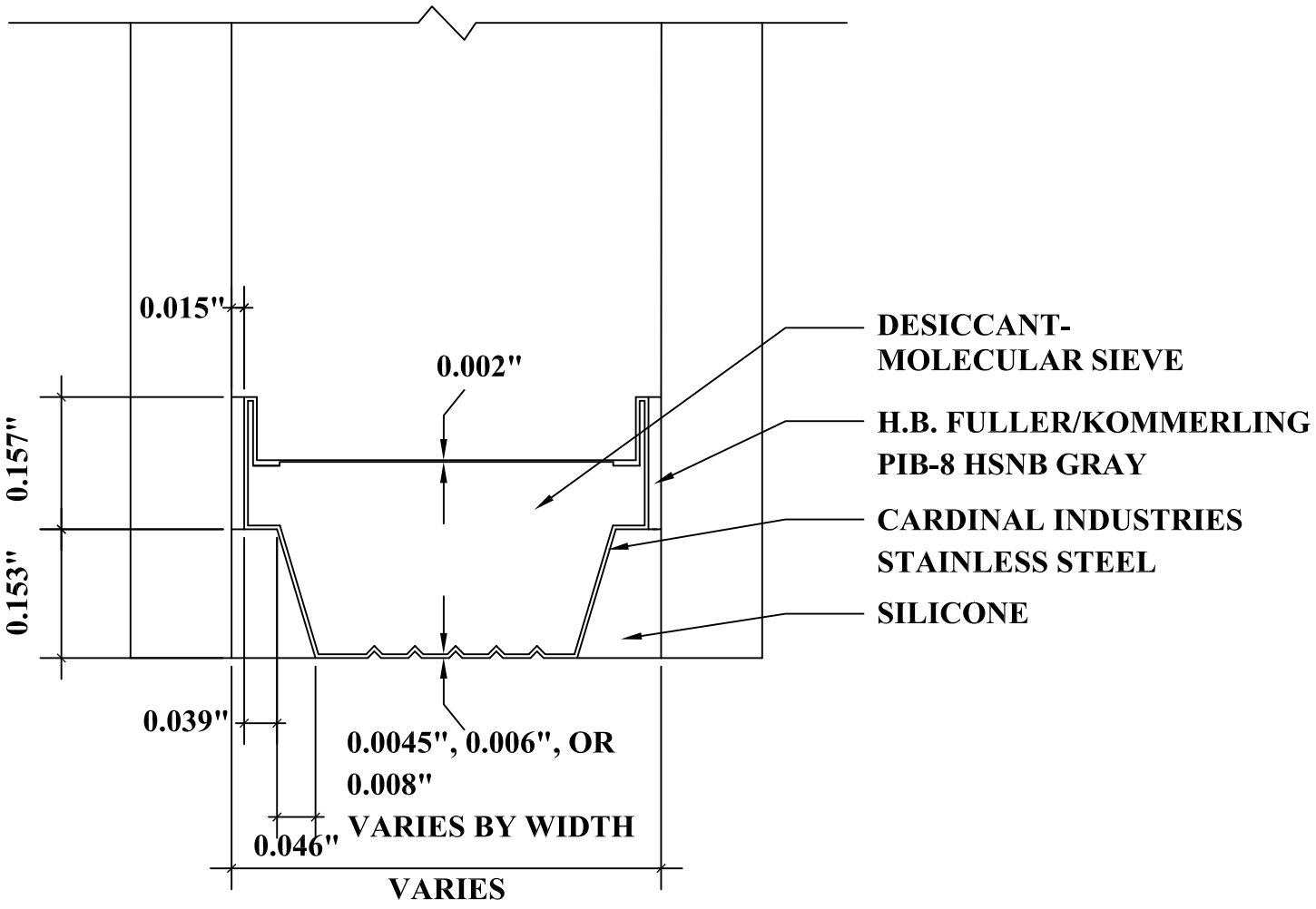
Packaging Information			
Muntin Bar Size	Part #	Pieces Per Shipping Carton 12' 8" Lengths	Lineal Feet Per Shipping Carton 12' 8" Lengths
1/8 x .610	219697	200	2533
3/16 x 9/16†	119320	150	1900
3/16 x .610†	119705	125	1583
3/16 x 5/8†	120874	125	1583
3/16 x 3/4	122909	110	1393
3/16 x 13/16	123618	110	1393
3/16 x 1	123823	85	1076
1/4 x 9/16	119427	135	1710
1/4 x 5/8†	121410	120	1520
1/4 x 3/4	123063	95	1203
1/4 x 13/16	215017	95	1203
1/4 x 1	123836	70	887
1/4 x 1 1/4	123856	51	646
5/16 x 1	210318	60	684
3/8 x 5/8	121468	90	1140
3/8 x 3/4	123088	75	950
3/8 x 13/16	215016	70	887
3/8 x 7/8	123797	55	697
3/8 x 1	201968	55	696
3/8(.375) x 3/8	205591	140	1773
7/16 x 3/8	119016	115	1457
7/16 x 3/8	216500**	115	1457
7/16 x 1/2	213045	88	1115
7/16 x 5/8Δ	214621	65	823
1/2 x 3/4*	201043	50	633
1/2 x 1	203710	40	506

Specification In Inches		
Muntin Bar Size	A	B
1/8 x .610	.125	.610
3/16 x 9/16†	.187	.551
3/16 x .610†	.187	.610
3/16 x 5/8†	.187	.630
3/16 x 3/4†	.187	.775
3/16 x 13/16†	.187	.801
3/16 x 1	.187	1.000
1/4 x 9/16	.235	.562
1/4 x 5/8†	.235	.625
1/4 x 3/4	.235	.765
1/4 x 13/16	.235	.801
1/4 x 1	.235	1.000
1/4 x 1 1/4	.235	1.250
5/16 x 1	.312	1.000
3/8 x 5/8†	.325	.625
3/8 x 3/4	.325	.750
3/8 x 13/16	.325	.801
3/8 x 7/8	.325	.875
3/8 x 1	.325	1.000
3/8(.375) x 3/8	.375	.375
7/16 x 3/8	.438	.375
7/16 x 3/8	.438	.375
7/16 x 1/2	.438	.500
7/16 x 5/8Δ	.438	.625
1/2 x 3/4*	.500	.750
1/2 x 1	.500	1.000

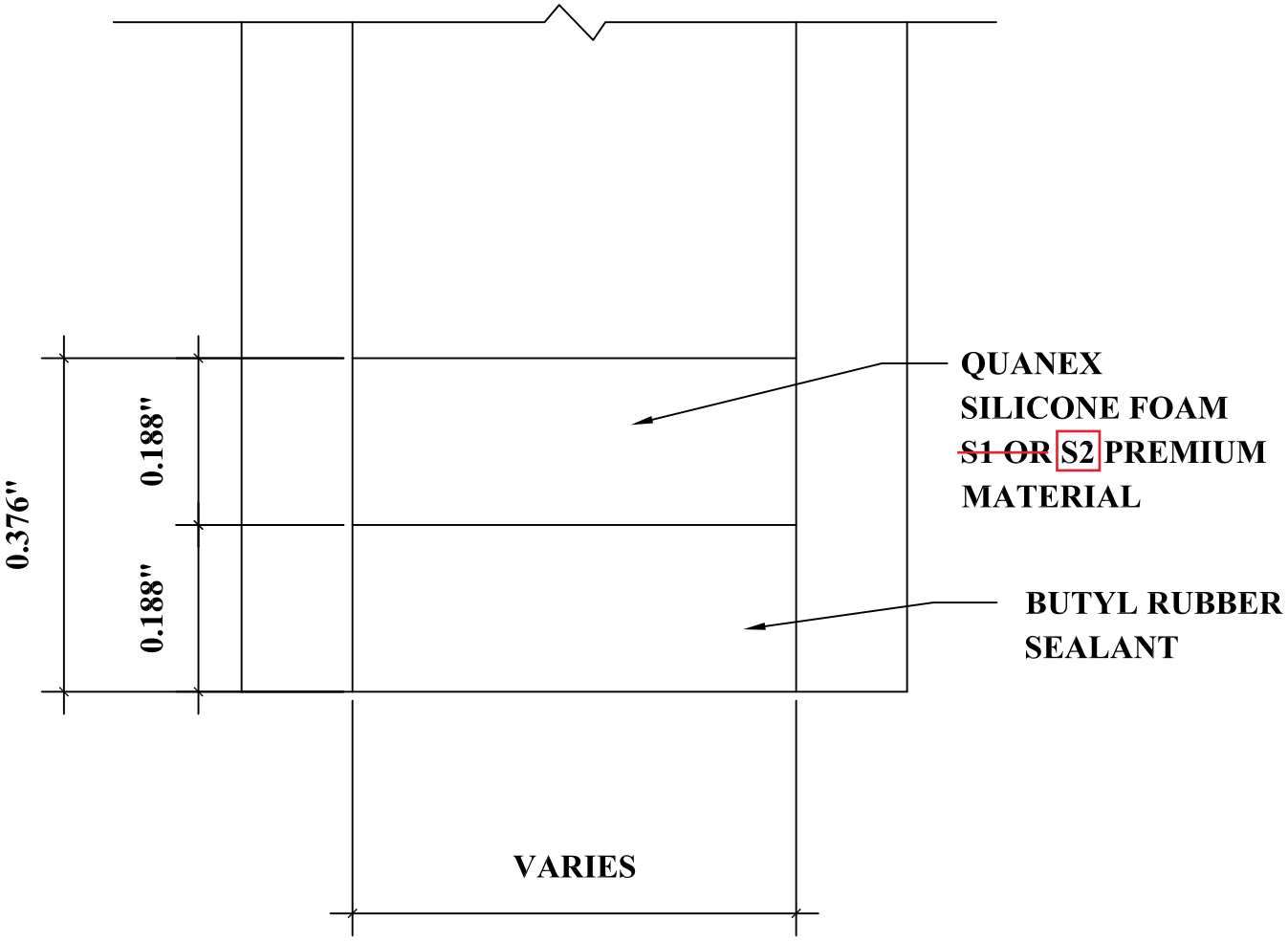
Part numbers shown are standard white color. **Material thickness: .0185**

† Available in tutone. Please see Color Selection Chart located in front of catalog.
Δ Part number shown is Dark Bronze Anodized Color.
* Part number shown is Clear Anodized. **Part number shown is white welded.

Note: Available in pre-cut lengths and pre-notched; tutone and post-painted. Custom colors also available.



DETAIL FOR THERMAL MODELING OF
CARDINAL ENDUR SPACER (SS-D)

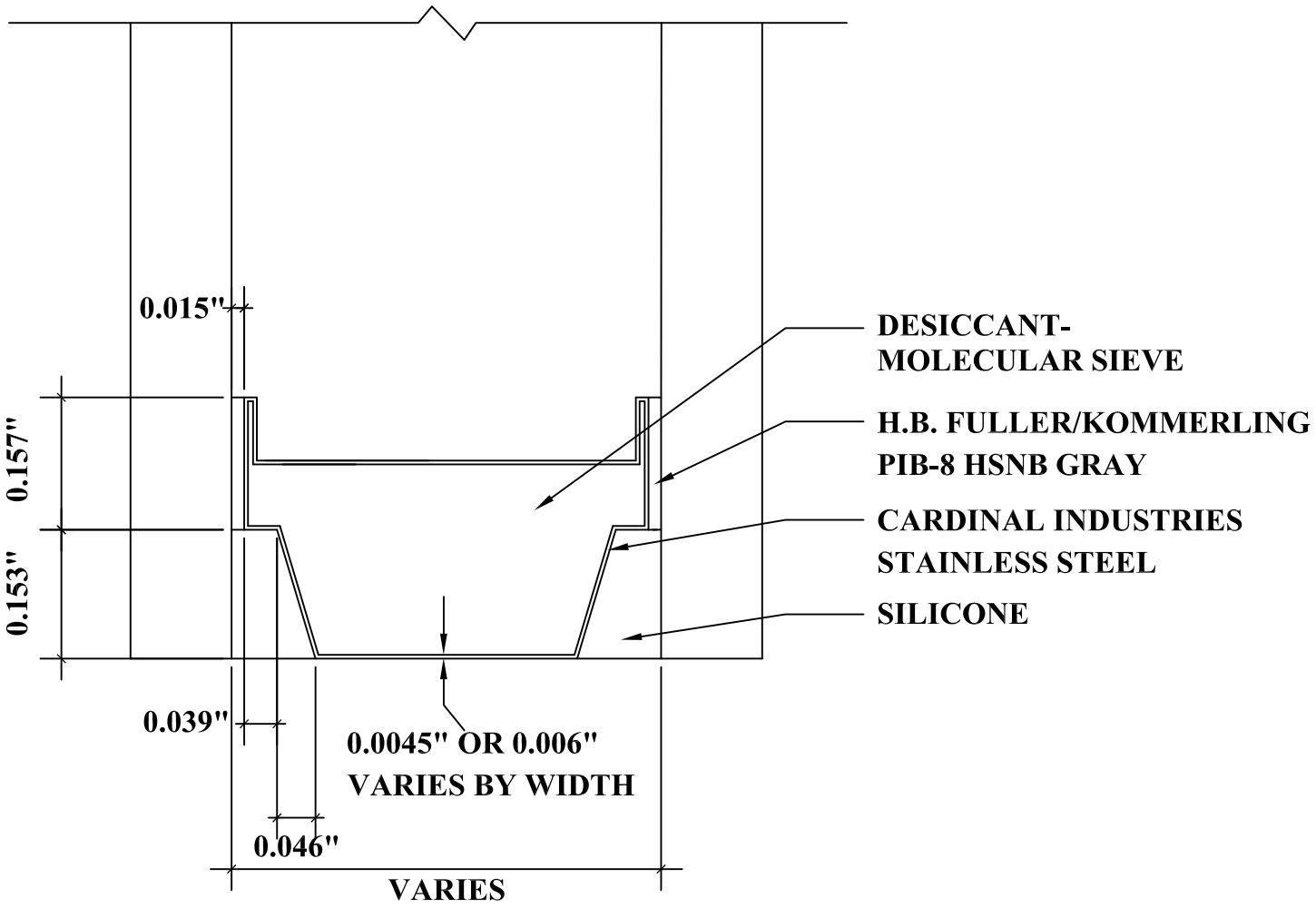


DETAIL FOR THERMAL MODELING OF
QUANEX SUPER SPACER PREMIUM (ZF-S)

VALIDATION SPACER

intertek Total Quality. Assured.

Report #: M4002-116-45
Date: 11/16/21
Verified by: Allison M Ford



DETAIL FOR THERMAL MODELING OF
CARDINAL XL EDGE SPACER (SS-D)

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

SECTION 8
REVISION LOG

REVISION #	DATE	PAGES	REVISION
.02R0	11/08/22	All	Reissue to Plesio, Inc.