

**NFRC U-FACTOR, SHGC, VT, &  
CONDENSATION RESISTANCE  
COMPUTER SIMULATION REPORT**

**Rendered to:  
NORTH EAST WINDOWS USA, INC.**

**SERIES/MODEL:  
PW4015**

**Report Number: H0197.01-116-45  
Report Date: 5/4/2017**

**NFRC U-FACTOR, SHGC, VT, & CONDENSATION RESISTANCE  
COMPUTER SIMULATION REPORT**

Rendered to:  
NORTH EAST WINDOWS USA, INC.  
One Kees Place  
Merrick, New York 11566

Report Number: H0197.01-116-45  
Simulation Date: 5/4/2017  
Report Date: 5/4/2017

**Project Summary:**

Architectural Testing, Inc., an Intertek Company (Intertek-ATI) was contracted to perform U-Factor, Solar Heat Gain Coefficient, Visible Transmittance, and Condensation Resistance\* computer simulations in accordance with the National Fenestration Rating Council (NFRC). The products were evaluated in full compliance with NFRC requirements to the standards listed  
*\*NFRC's Condensation Resistance rating is NOT equivalent to a Condensation Resistance Factor (CRF) determined in accordance with AAMA 1503.*

**Standards:**

*ANSI/NFRC 100-2014: Procedure for Determining Fenestration Product U-Factors*  
*ANSI/NFRC 200-2014: Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence*  
*NFRC 500-2014: Procedure for Determining Fenestration Product Condensation Resistance Values*

**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 53.0

**Simulations Specimen Description:**

**Series/Model:** PW4015  
**Type:** Fixed, 4-Sided  
**Frame Material:** VY Vinyl  
**Sash Material:** NA Not Applicable  
**Standard Size:** 1200mm x 1500mm

**Modeling Assumptions/Technical Interpretations:**

- 1) Dividers were not modeled per ANSI/NFRC 100-2014, Section 4.2.4.1.D.ii.

**Specialty Products Table:**

The specialty products method allow 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 7.4.8. The method gives 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	0.002342	0.005273	0.008044
SHGC1	0.865083	0.779034	0.697664
VT0	0.000000	0.000000	0.000000
VT1	0.862741	0.773761	0.689620

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

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

**Validation Matrix:**

The following products are part of a validation matrix. Only one is required for validation testing.

<i>Product Line</i>	<i>Report Number</i>
None	-

**Spacer Option Description**

<i>Spacer Type</i>	<i>Sealant</i>		<i>Code</i>
	<i>Primary</i>	<i>Secondary</i>	
Quanex Duraseal Spacer	Butyl Rubber		A8-S
Quanex Duralite Spacer	Butyl Rubber		P1-S
Quanex nXt Super Spacer	Butyl Rubber		ZE-S

**Grid Option Description**

<i>Grid Size</i>	<i>Grid Type</i>	<i>Grid Pattern</i>
3/16" x 5/8"	Aluminum Rectangular Grid (Painted)	NFRC Standard

**Reinforcement Option Description**

<i>Location</i>	<i>Material</i>
None	-

**Gas Filling Technique Description**

<i>Fill Type</i>	<i>Method</i>
90% Argon	Single Probe, Timed

**Edge-of-Glass Construction**

<i>Interior Condition</i>	Rigid PVC Glazing Bead with Flexible Fin Against Glass
<i>Exterior Condition</i>	Foam Weatherstripping Between Rigid PVC Frame and Glass

**Weatherstripping**

<i>Type</i>	<i>Quantity</i>	<i>Location</i>
None	-	-

**Frame/Sash Materials Finish**

<i>Interior</i>	Vinyl
<i>Exterior</i>	Vinyl

**NFRC 100/200/500 Summary Sheet**  
**PW4015**

ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids: (None / <1 / >=1)				Visible Transmittance (VT) Grids: (None / <1 / >=1)		Condensation Resistance		
1	No Foam: CS36 / AIR / CLR (2MM/2MM) - 7/8" IG											
	0.090	0.688	0.086					AIR	0.027(#2)	CL	A8-S	N,G
	U-Factor 0.32			SHGC (N / <1) 0.32 / 0.29				VT (N / <1) 0.58 / 0.52		CR 57		
	No Foam: CS36 / AIR / CLR (3MM/3MM) - 7/8" IG											
	0.128	0.625	0.123					AIR	0.027(#2)	CL	A8-S	N,G
	U-Factor 0.32			SHGC (N / <1) 0.31 / 0.29				VT (N / <1) 0.57 / 0.51		CR 57		
2	No Foam: CS36 / ARG90 / CLR (2MM/2MM) - 7/8" IG											
	0.090	0.688	0.086					ARG90	0.027(#2)	CL	A8-S	N,G
	U-Factor 0.28			SHGC (N / <1) 0.31 / 0.29				VT (N / <1) 0.58 / 0.52		CR 60		
	No Foam: CS36 / ARG90 / CLR (3MM/3MM) - 7/8" IG											
	0.128	0.625	0.123					ARG90	0.027(#2)	CL	A8-S	N,G
	U-Factor 0.28			SHGC (N / <1) 0.31 / 0.28				VT (N / <1) 0.57 / 0.51		CR 60		
3	No Foam: RLE 71/38 / ARG90 / CLR (2MM/2MM) - 7/8" IG											
	0.090	0.688	0.090					ARG90	0.027(#2)	CL	A8-S	N,G
	U-Factor 0.28			SHGC (N / <1) 0.34 / 0.31				VT (N / <1) 0.62 / 0.55		CR 60		
	No Foam: RLE 71/38 / ARG90 / CLR (3MM/3MM) - 7/8" IG											
	0.117	0.625	0.117					ARG90	0.027(#2)	CL	A8-S	N,G
	U-Factor 0.28			SHGC (N / <1) 0.34 / 0.30				VT (N / <1) 0.61 / 0.55		CR 60		
4	No Foam: E366 / ARG90 / CLR (2MM/2MM) - 7/8" IG											
	0.087	0.688	0.087					ARG90	0.022(#2)	CL	A8-S	N,G
	U-Factor 0.28			SHGC (N / <1) 0.24 / 0.22				VT (N / <1) 0.56 / 0.51		CR 61		
	No Foam: E366 / ARG90 / CLR (3MM/3MM) - 7/8" IG											
	0.117	0.625	0.118					ARG90	0.022(#2)	CL	A8-S	N,G
	U-Factor 0.28			SHGC (N / <1) 0.24 / 0.22				VT (N / <1) 0.56 / 0.50		CR 61		
5	No Foam: CLR / AIR / CLR (3MM/3MM) - 7/8" IG											
	0.123	0.625	0.123					AIR		CL	P1-S	N,G
	U-Factor 0.47			SHGC (N / <1) 0.68 / 0.61				VT (N / <1) 0.71 / 0.64		CR 44		
6	No Foam: CS36 / AIR / CLR (2MM/2MM) - 7/8" IG											
	0.090	0.688	0.086					AIR	0.027(#2)	CL	P1-S	N,G
	U-Factor 0.31			SHGC (N / <1) 0.32 / 0.29				VT (N / <1) 0.58 / 0.52		CR 60		

### NFRC 100/200/500 Summary Sheet PW4015

ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grid: (None / <1 / >=1)				Visible Transmittance (VT) Grid: (None / <1 / >=1)		Condensation Resistance		
	No Foam: CS36 / AIR / CLR (3MM/3MM) - 7/8" IG											
	0.128	0.625	0.123					AIR	0.027(#2)	CL	P1-S	N,G
	U-Factor 0.31			SHGC (N / <1) 0.31 / 0.29				VT (N / <1) 0.57 / 0.51		CR 60		
7	No Foam: RLE 71/38 / AIR / CLR (2MM/2MM) - 7/8" IG											
	0.090	0.688	0.090					AIR	0.027(#2)	CL	P1-S	N,G
	U-Factor 0.31			SHGC (N / <1) 0.34 / 0.31				VT (N / <1) 0.62 / 0.55		CR 60		
	No Foam: RLE 71/38 / AIR / CLR (3MM/3MM) - 7/8" IG											
	0.117	0.625	0.117					AIR	0.027(#2)	CL	P1-S	N,G
	U-Factor 0.31			SHGC (N / <1) 0.34 / 0.31				VT (N / <1) 0.61 / 0.55		CR 60		
8	No Foam: E366 / AIR / CLR (2MM/2MM) - 7/8" IG											
	0.087	0.688	0.087					AIR	0.022(#2)	CL	P1-S	N,G
	U-Factor 0.31			SHGC (N / <1) 0.24 / 0.22				VT (N / <1) 0.56 / 0.51		CR 60		
	No Foam: E366 / AIR / CLR (3MM/3MM) - 7/8" IG											
	0.117	0.625	0.118					AIR	0.022(#2)	CL	P1-S	N,G
	U-Factor 0.31			SHGC (N / <1) 0.24 / 0.22				VT (N / <1) 0.56 / 0.50		CR 60		
9	No Foam: CLR / ARG90 / CS28 (2MM/2MM) - 7/8" IG											
	0.086	0.688	0.087					ARG90	0.023(#3)	CL	P1-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.34 / 0.31				VT (N / <1) 0.55 / 0.50		CR 64		
10	No Foam: CS28 / ARG90 / CS73 (2MM/2MM) - 7/8" IG											
	0.087	0.688	0.087					ARG90	0.023(#2) / 0.148(#4)	CL	P1-S	N,G
	U-Factor 0.22			SHGC (N / <1) 0.23 / 0.21				VT (N / <1) 0.51 / 0.46		CR 52		
11	No Foam: CS36 / ARG90 / CLR (2MM/2MM) - 7/8" IG											
	0.090	0.688	0.086					ARG90	0.027(#2)	CL	P1-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.31 / 0.29				VT (N / <1) 0.58 / 0.52		CR 64		
	No Foam: CS36 / ARG90 / CLR (3MM/3MM) - 7/8" IG											
	0.128	0.625	0.123					ARG90	0.027(#2)	CL	P1-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.31 / 0.28				VT (N / <1) 0.57 / 0.51		CR 64		
12	No Foam: RLE 70/36 / ARG90 / CLR (2MM/2MM) - 7/8" IG											
	0.090	0.688	0.090					ARG90	0.036(#2)	CL	P1-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.33 / 0.30				VT (N / <1) 0.61 / 0.55		CR 63		

**NFRC 100/200/500 Summary Sheet**  
**PW4015**

ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grid: (None / <1 / >=1)				Visible Transmittance (VT) Grid: (None / <1 / >=1)				
	No Foam: RLE 70/36 / ARG90 / CLR (3MM/3MM) - 7/8" IG											
	0.117	0.625	0.117					ARG90	0.036(#2)	CL	P1-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.33 / 0.30				VT (N / <1) 0.61 / 0.54		CR 63		
13	No Foam: CLR / ARG90 / RLE 70/36 (2MM/2MM) - 7/8" IG											
	0.090	0.688	0.090					ARG90	0.036(#3)	CL	P1-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.43 / 0.39				VT (N / <1) 0.61 / 0.55		CR 64		
	No Foam: CLR / ARG90 / RLE 70/36 (3MM/3MM) - 7/8" IG											
	0.117	0.625	0.117					ARG90	0.036(#3)	CL	P1-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.42 / 0.38				VT (N / <1) 0.61 / 0.54		CR 64		
14	No Foam: E366 / ARG90 / CLR (2MM/2MM) - 7/8" IG											
	0.087	0.688	0.087					ARG90	0.022(#2)	CL	P1-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.24 / 0.22				VT (N / <1) 0.56 / 0.51		CR 64		
	No Foam: E366 / ARG90 / CLR (3MM/3MM) - 7/8" IG											
	0.117	0.625	0.118					ARG90	0.022(#2)	CL	P1-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.24 / 0.22				VT (N / <1) 0.56 / 0.50		CR 64		
15	No Foam: CLR / AIR / CLR (3MM/3MM) - 7/8" IG											
	0.123	0.625	0.123					AIR		CL	ZE-S	N,G
	U-Factor 0.46			SHGC (N / <1) 0.68 / 0.61				VT (N / <1) 0.71 / 0.64		CR 45		
16	No Foam: CS36 / AIR / CLR (2MM/2MM) - 7/8" IG											
	0.090	0.688	0.086					AIR	0.027(#2)	CL	ZE-S	N,G
	U-Factor 0.32			SHGC (N / <1) 0.32 / 0.29				VT (N / <1) 0.58 / 0.52		CR 58		
	No Foam: CS36 / AIR / CLR (3MM/3MM) - 7/8" IG											
	0.128	0.625	0.123					AIR	0.027(#2)	CL	ZE-S	N,G
	U-Factor 0.32			SHGC (N / <1) 0.31 / 0.29				VT (N / <1) 0.57 / 0.51		CR 58		
17	No Foam: CS36 / ARG90 / CLR (2MM/2MM) - 7/8" IG											
	0.090	0.688	0.086					ARG90	0.027(#2)	CL	ZE-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.31 / 0.29				VT (N / <1) 0.58 / 0.52		CR 62		
	No Foam: CS36 / ARG90 / CLR (3MM/3MM) - 7/8" IG											
	0.128	0.625	0.123					ARG90	0.027(#2)	CL	ZE-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.31 / 0.28				VT (N / <1) 0.57 / 0.51		CR 62		

**NFRC 100/200/500 Summary Sheet**  
**PW4015**

ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grid: (None / <1 / >=1)				Visible Transmittance (VT) Grid: (None / <1 / >=1)			Condensation Resistance	
18	No Foam: E366 / ARG90 / CLR (2MM/2MM) - 7/8" IG											
	0.087	0.688	0.087					ARG90	0.022(#2)	CL	ZE-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.24 / 0.22				VT (N / <1) 0.56 / 0.51			CR 62	
	No Foam: E366 / ARG90 / CLR (3MM/3MM) - 7/8" IG											
	0.117	0.625	0.118					ARG90	0.022(#2)	CL	ZE-S	N,G
	U-Factor 0.27			SHGC (N / <1) 0.24 / 0.22				VT (N / <1) 0.56 / 0.50			CR 62	
19	Foam: CS28 / ARG95 / CS73 (3MM/3MM) - 7/8" IG											
	0.125	0.625	0.123					ARG95	0.021(#2) / 0.148(#4)	CL	A8-S	N,G
	U-Factor 0.21			SHGC (N / <1) 0.23 / 0.21				VT (N / <1) 0.49 / 0.44			CR 44	
20	Foam: E366 / ARG95 / CS73 (2MM/2MM) - 7/8" IG											
	0.087	0.688	0.087					ARG95	0.022(#2) / 0.148(#4)	CL	A8-S	N,G
	U-Factor 0.22			SHGC (N / <1) 0.23 / 0.21				VT (N / <1) 0.53 / 0.47			CR 49	
	Foam: E366 / ARG95 / CS73 (3MM/3MM) - 7/8" IG											
	0.117	0.625	0.123					ARG95	0.022(#2) / 0.148(#4)	CL	A8-S	N,G
	U-Factor 0.22			SHGC (N / <1) 0.22 / 0.20				VT (N / <1) 0.50 / 0.45			CR 49	
21	Foam: CS28 / ARG95 / CS73 (3MM/3MM) - 7/8" IG											
	0.125	0.625	0.123					ARG95	0.021(#2) / 0.148(#4)	CL	P1-S	N,G
	U-Factor 0.21			SHGC (N / <1) 0.23 / 0.21				VT (N / <1) 0.49 / 0.44			CR 44	
22	Foam: E366 / ARG90 / CS73 (2MM/2MM) - 7/8" IG											
	0.087	0.688	0.087					ARG90	0.022(#2) / 0.148(#4)	CL	P1-S	N,G
	U-Factor 0.21			SHGC (N / <1) 0.23 / 0.21				VT (N / <1) 0.53 / 0.47			CR 52	
	Foam: E366 / ARG90 / CS73 (3MM/3MM) - 7/8" IG											
	0.117	0.625	0.123					ARG90	0.022(#2) / 0.148(#4)	CL	P1-S	N,G
	U-Factor 0.21			SHGC (N / <1) 0.22 / 0.20				VT (N / <1) 0.50 / 0.45			CR 52	



The 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 Certification Authorization Report (CAR) by an NFRC accredited Inspection Agency (IA) are to be used for labeling purposes. The ratings values were rounded in accordance to NFRC 601, NFRC Unit and Measurement Policy.

Intertek-ATI 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.

Intertek-ATI will service this report for the entire test record retention period. Test records that are retained such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation will be retained by Intertek-ATI for the entire test record retention period. The test record retention end date for this report is May 4, 2022.

Results obtained are simulated values and were secured by using the designated test methods. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the product simulated. This report may not be reproduced, except in full, without the written approval of Intertek-ATI.

For INTERTEK-ATI:

SIMULATED BY:

  
cosign

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Simulation Technician

REVIEWED BY:

  
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Kristen L. Louder  
Senior Simulation Technician  
Simulator-In-Responsible-Charge

AMF:amf

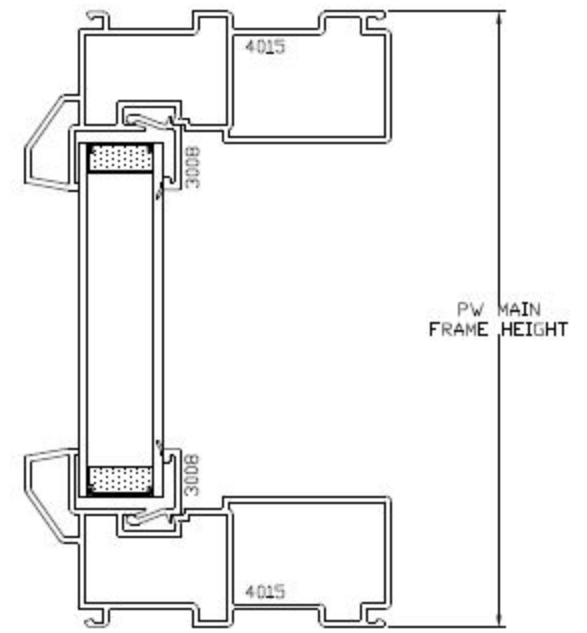
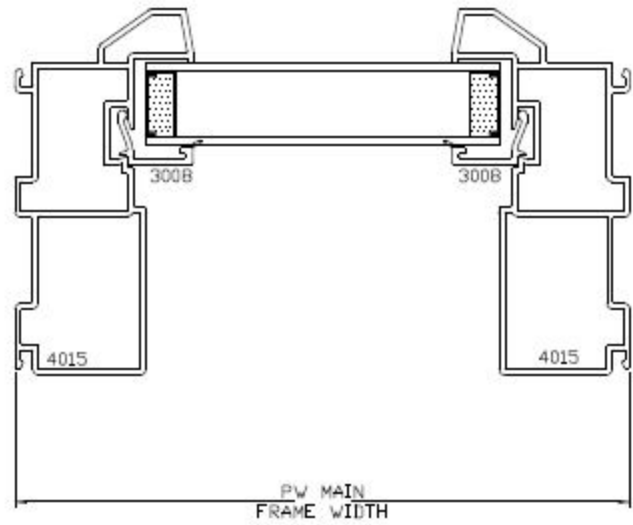
H0197.01-116-45

Attachments (pages):                      This report is complete only when all attachments listed are included.  
Appendix A: Drawings and Bills of Material (8)

### Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
.01R0	5/4/2017	All	Original Report Issued to North East Windows USA, Inc..

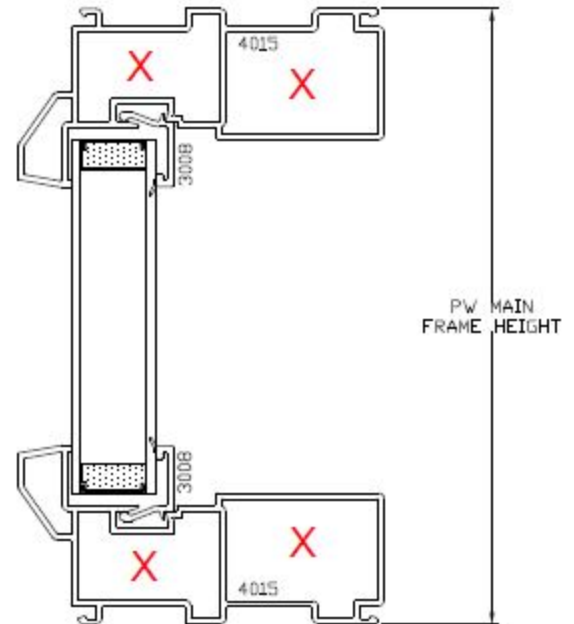
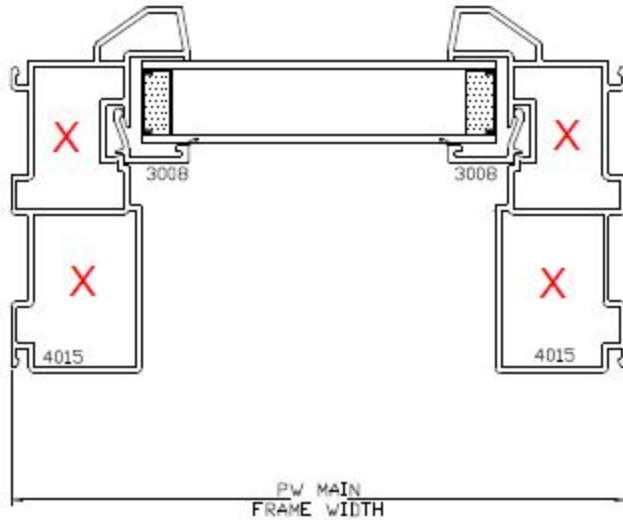
All drawings and Bills of Material used to simulate this product are enclosed in this Appendix



DO NOT SCALE DRAWING

NO.	REVISION	BY	DATE


<p>"OUR NAME SAYS IT ALL"</p>	1) MATERIAL RIGID PVC 2) CAPSTOCK ..... 3) UNSPECIFIED WALLS ..... 4) BREAK ALL CORNERS .....R 5) AREA .....SQ. IN. 6) WT/FT .....LBS/FT.	TITLE PW 4015 WELD MAIN FRAME DWN BY DDS SCALE DATE 01/03/12 CHKD BY APPD BY COMPUTER NO DWG NO PW4015 CROSS SECTION
	LOCATION FOR IMPACT TEST SPECIFICATION-LENGTHS TO 3/8"	ALLOWABLE BOW MAX. 1" PER 14" ANGULARITY TO BE ± 1/2



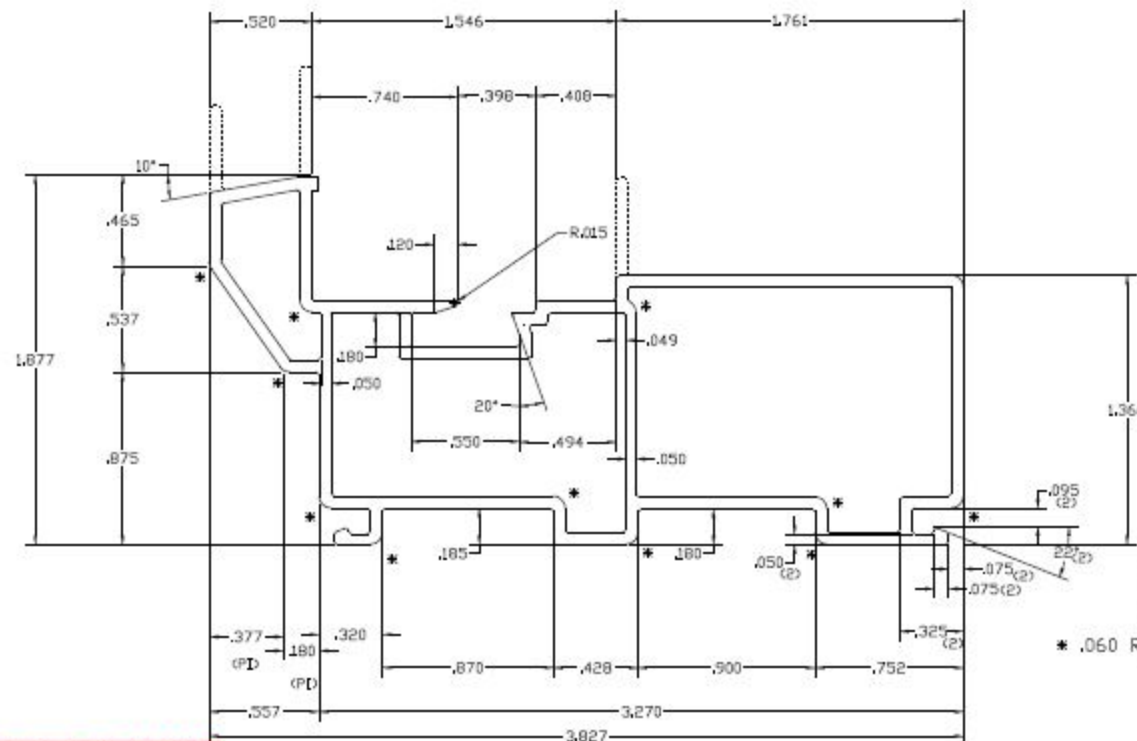
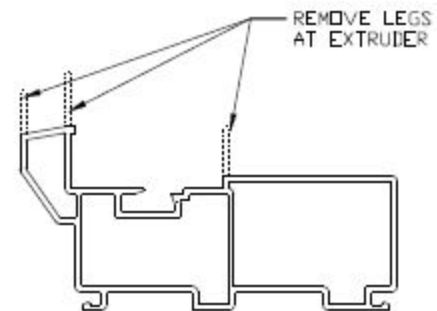
**X = Polystyrene (Expanded) Foam**

DO NOT SCALE DRAWING

NO.	REVISION	BY	DATE

<input checked="" type="checkbox"/> LOCATION FOR IMPACT TEST SPECIFICATION-LENGTHS TO 3/8"	ALLOWABLE BOW MAX. 1" PER 14" ANGULARITY TO BE ± 1/2						
	DRAWN FOR  QUALITY LINEALS BY DDS DESIGNS	1) MATERIAL RIGID PVC 2) CAPSTOCK ..... 3) UNSPECIFIED WALLS ..... 4) BREAK ALL CORNERS .....R 5) AREA ..... SQ. IN. 6) WT/FT ..... LBS./FT.	TITLE PW 4015 WELD MAIN FRAME	DWN BY DDS	SCALE	DATE 01/03/12	DWD BY
"OUR NAME SAYS IT ALL"		COMPUTER NO					
		DWG NO PW4015 CROSS SECTION					





AREA BEFORE LEG REMOVAL = .912 IN SQ  
 AREA AFTER LEG REMOVAL = [REDACTED] IN SQ

WT/FT BEFORE LEG REMOVAL = .574 LBS/FT

\* .060 R  
 WT/FT AFTER LEG REMOVAL = [REDACTED] LBS/FT

Material: Rigid PVC

DO NOT SCALE DRAWING

LOCATION FOR IMPACT TEST SPECIFICATION—LENGTHS TO 3/8"

ALLOWABLE BOW MAX. 1" PER 14' ANGULARITY TO BE ± 1/2



- 1) MATERIAL RIGID PVC
- 2) CAPSTOCK
- 3) UNSPECIFIED WALLS .060
- 4) BREAK ALL CORNERS .015 R
- 5) AREA .823 SQ IN
- 6) WT/FT [REDACTED] LBS/FT

TITLE WELDED PW  
 PW MF NO FIN NO J


OWN BY DDS SCALE 2:1 DATE 06-05-11 CHD BY APPD BY

COMPUTER NO

DWG NO 4015

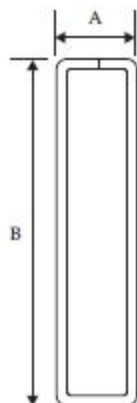
"OUR NAME SAYS IT ALL"

NO.	REVISION	BY	DATE




### Muntin Bar

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



#### TOLERANCE

A, ± .005 (.127mm)

B, ± .005 (.127mm)



Report #: H0197-116-45

Date: 05/04/17

Verified by: Allison M. Ford

#### 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 clearing 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	125017	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 5/8 <sup>Δ</sup>	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 5/8 <sup>Δ</sup>	.438	.625
1/2 x 3/4*	.500	.750
1/2 x 1	.500	1.000

Part numbers shown are standard white color.

† Available in tutone. Please see Color Selection Chart located in front of catalog.

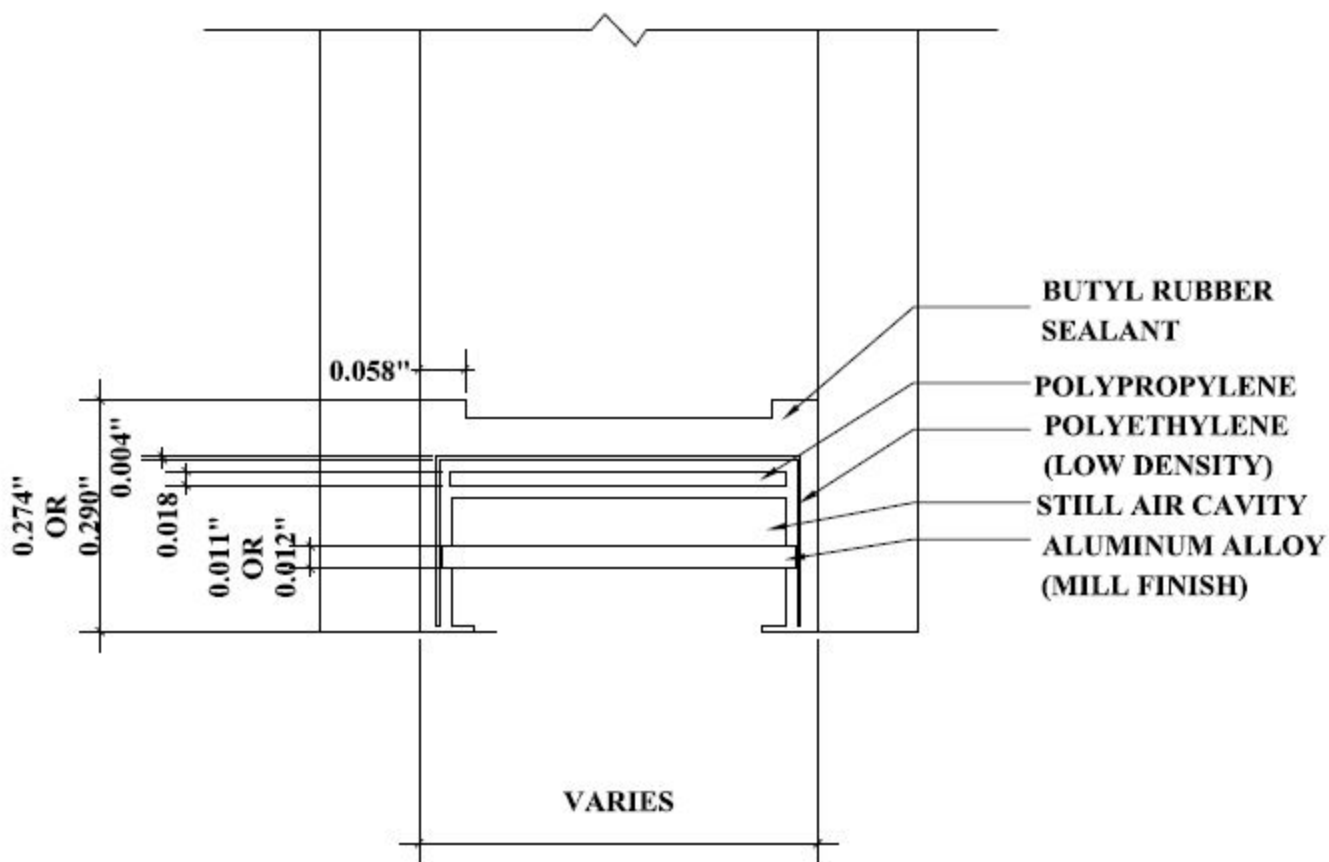
Δ Part number shown is Dark Bronze Anodized Color.

\* Part number shown is Clear Anodized. \*\*Part number shown is white welded.

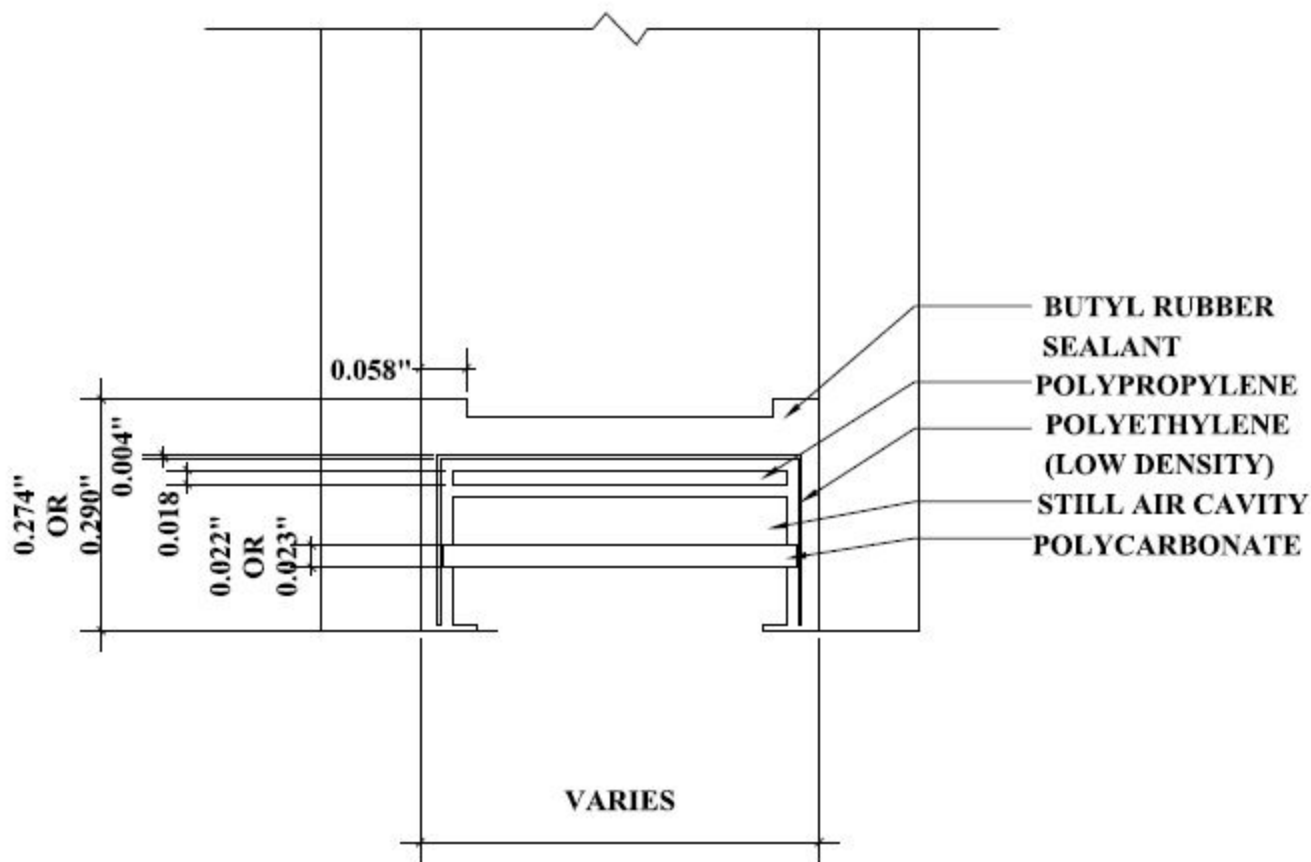
Note: Available in pre-cut lengths and pre-notched; tutone and post-painted. Custom colors also available.

Material thickness: .0185

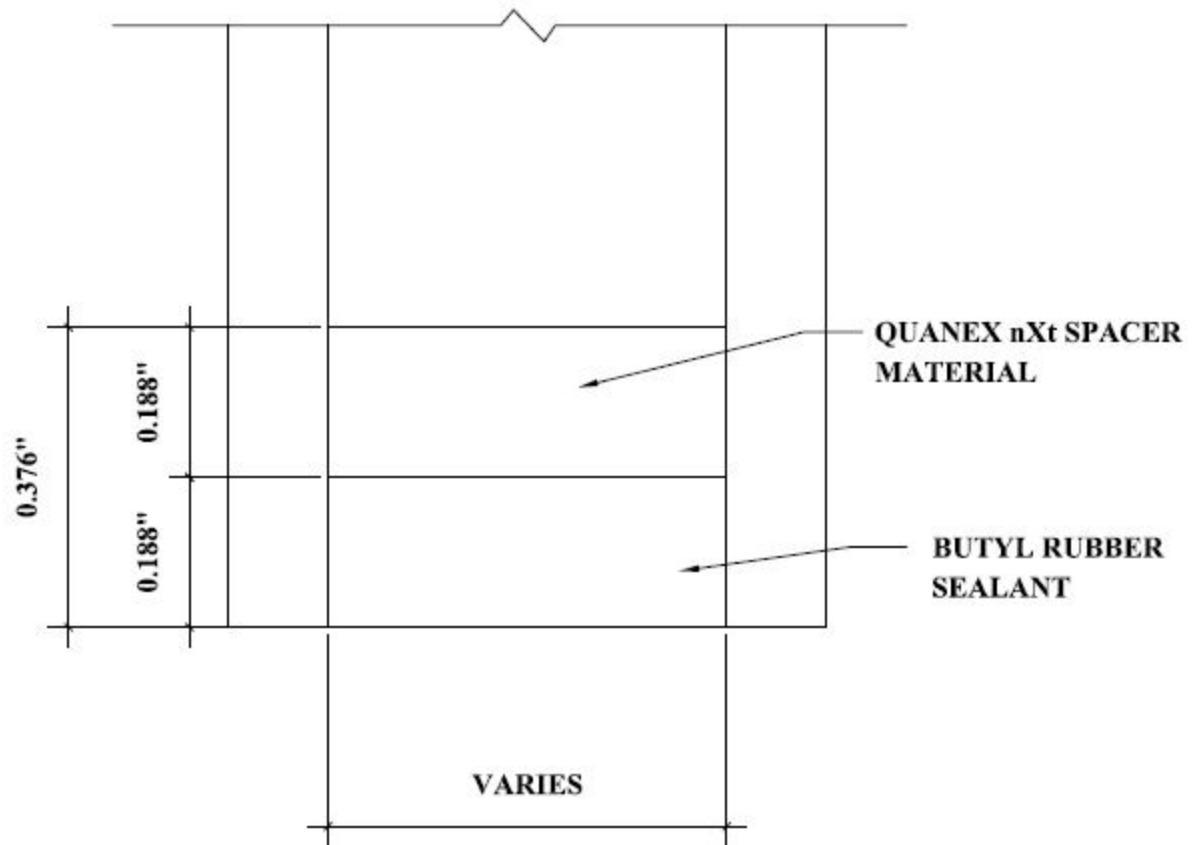




DETAIL FOR THERMAL MODELING OF  
QUANEX DURASEAL SPACER (A8-S)



DETAIL FOR THERMAL MODELING OF  
QUANEX DURALITE SPACER (P1-S)



DETAIL FOR THERMAL MODELING OF  
QUANEX SUPER SPACER nXt (ZE-S)