

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

*(Revised)*

**Rendered to:  
SPECIALTY WHOLESALE SUPPLY**

**SERIES/MODEL:  
4100 / 4600 DuraGard XT Horizontal Slider**

**Report Number: E7528.08-116-45**  
**Original Report Date: 12/02/15**  
**Revised Report Date: 01/18/17**



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

*(Revised)*

Rendered to:  
SPECIALTY WHOLESALE SUPPLY  
101 Linus Allain Avenue  
Gardner, Massachusetts 01440

Report Number: E7528.08-116-45  
Simulation Date: 12/02/15  
Original Report Date: 12/02/15  
Revised Report Date: 01/18/17

**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 52.0

**Simulations Specimen Description:**

**Series/Model:** 4100 / 4600 DuraGard XT Horizontal Slider  
**Type:** Horizontal Slider, Operable/Operable  
**Frame Material:** VY Vinyl  
**Sash Material:** VI Vinyl w/ Reinforcement - Interlock  
**Standard Size:** 1500mm x 1200mm

**Modeling Assumptions/Technical Interpretations:**

- 1) To prevent air infiltration, tape was applied to all interior sash crack locations.
- 2) Grids did not require modeling in some options per the NFRC 3mm rule.

**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 7.4.14. 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	0.003104	0.005872	0.008479
SHGC1	0.765041	0.684341	0.608320
VT0	0.000000	0.000000	0.000000
VT1	0.761937	0.678470	0.599841

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

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

**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 Standard Super Spacer	Butyl Rubber	None	OF-S

**Grid Option Description**

<i>Grid Size</i>	<i>Grid Type</i>	<i>Grid Pattern</i>
5.5mm x 18mm	Aluminum Contour Grid (Painted)	NFRC Standard
0.220" x 0.875"	SDL Bar	NFRC Standard
0.111" x 0.875"	SDL Bar	NFRC Standard

**Reinforcement Option Description**

<i>Location</i>	<i>Material</i>
Interlocks	Composite

**Gas Filling Technique Description**

<i>Fill Type</i>	<i>Method</i>
92% Argon	Two-probe with concentration sensor

**Edge-of-Glass Construction**

<i>Interior Condition</i>	Vinyl glazing leg with Silicone
<i>Exterior Condition</i>	Vinyl glazing bead

**Weatherstripping**

<i>Type</i>	<i>Quantity</i>	<i>Location</i>
Finpile	1	Sash Perimeter

**Frame/Sash Materials Finish**

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

**NFRC 100/200/500 Summary Sheet  
4100 / 4600 DuraGard XT Horizontal Slider**

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: Clear/Air/Clear (SS) 7/8"											
	0.090	0.688	0.090					AIR		CL	OF-S	N,G,S
	U-Factor 0.45			SHGC (N / <1) 0.61 / 0.55				VT (N / <1) 0.63 / 0.56			CR 45	
	No Foam: Clear/Air/Clear (DS) 7/8"											
	0.117	0.625	0.117					AIR		CL	OF-S	N,G,S
	U-Factor 0.45			SHGC (N / <1) 0.60 / 0.54				VT (N / <1) 0.63 / 0.56			CR 45	
2	No Foam: 7138/Air/Clear (SS) 7/8"											
	0.090	0.688	0.090					AIR	0.027(#2)	CL	OF-S	N,G,S
	U-Factor 0.32			SHGC (N / <1) 0.30 / 0.27				VT (N / <1) 0.54 / 0.48			CR 57	
	No Foam: 7138/Air/Clear (DS) 7/8"											
	0.117	0.625	0.117					AIR	0.027(#2)	CL	OF-S	N,G,S
	U-Factor 0.32			SHGC (N / <1) 0.30 / 0.27				VT (N / <1) 0.54 / 0.48			CR 57	
3	No Foam: 7138/Argon/Clear (SS) 7/8"											
	0.090	0.688	0.090					ARG92	0.027(#2)	CL	OF-S	N,G,S
	U-Factor 0.28			SHGC (N / <1) 0.30 / 0.27				VT (N / <1) 0.54 / 0.48			CR 61	
	No Foam: 7138/Argon/Clear (DS) 7/8"											
	0.117	0.625	0.117					ARG92	0.027(#2)	CL	OF-S	N,G,S
	U-Factor 0.28			SHGC (N / <1) 0.30 / 0.27				VT (N / <1) 0.54 / 0.48			CR 61	
4	No Foam: Clear/Air/7257 (SS) 7/8"											
	0.090	0.688	0.090					AIR	0.045(#3)	CL	OF-S	N,G,S
	U-Factor 0.32			SHGC (N / <1) 0.45 / 0.40				VT (N / <1) 0.55 / 0.49			CR 57	
	No Foam: Clear/Air/7257 (DS) 7/8"											
	0.117	0.625	0.117					AIR	0.045(#3)	CL	OF-S	N,G,S
	U-Factor 0.32			SHGC (N / <1) 0.44 / 0.39				VT (N / <1) 0.54 / 0.48			CR 57	
5	No Foam: Clear/Argon/7257 (SS) 7/8"											
	0.090	0.688	0.090					ARG92	0.045(#3)	CL	OF-S	N,G,S
	U-Factor 0.29			SHGC (N / <1) 0.45 / 0.40				VT (N / <1) 0.55 / 0.49			CR 61	
	No Foam: Clear/Argon/7257 (DS) 7/8"											
	0.117	0.688	0.117					ARG92	0.045(#3)	CL	OF-S	N,G,S
	U-Factor 0.29			SHGC (N / <1) 0.44 / 0.40				VT (N / <1) 0.54 / 0.48			CR 61	

**NFRC 100/200/500 Summary Sheet  
4100 / 4600 DuraGard XT Horizontal Slider**

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	
6	No Foam: 7138/Argon/Clear/Argon/Clear (DS-SS-DS) 1"											
	0.117	0.250	0.090	0.438	0.117			ARG92	0.027(#2)	CL	OF-S	N
	U-Factor 0.27			SHGC (N) 0.28				VT (N) 0.49			CR 62	
7	No Foam: 7138/Argon/Clear/Argon/Clear (DS-SS-DS) 1"											
	0.117	0.250	0.090	0.438	0.117			ARG92	0.027(#2)	CL	OF-S	G,S
	U-Factor 0.28			SHGC (<1) 0.25				VT (<1) 0.44			CR 62	
8	No Foam: Clear/Argon/Clear/Argon/7257 (DS-SS-DS) 1"											
	0.117	0.250	0.090	0.438	0.117			ARG92	0.045(#5)	CL	OF-S	N
	U-Factor 0.24			SHGC (N) 0.41				VT (N) 0.50			CR 64	
9	No Foam: Clear/Argon/Clear/Argon/7257 (DS-SS-DS) 1"											
	0.117	0.250	0.090	0.438	0.117			ARG92	0.045(#5)	CL	OF-S	G,S
	U-Factor 0.24			SHGC (<1) 0.37				VT (<1) 0.44			CR 64	
10	Foam(Sash Only): Clear/Air/Clear (SS) 7/8"											
	0.090	0.688	0.090					AIR		CL	OF-S	N,G,S
	U-Factor 0.45			SHGC (N / <1) 0.61 / 0.55				VT (N / <1) 0.63 / 0.56			CR 45	
	Foam(Sash Only): Clear/Air/Clear (DS) 7/8"											
	0.117	0.625	0.117					AIR		CL	OF-S	N,G,S
	U-Factor 0.45			SHGC (N / <1) 0.60 / 0.54				VT (N / <1) 0.63 / 0.56			CR 45	
11	Foam(Sash Only): 7138/Air/Clear (SS) 7/8"											
	0.090	0.688	0.090					AIR	0.027(#2)	CL	OF-S	N,G,S
	U-Factor 0.31			SHGC (N / <1) 0.30 / 0.27				VT (N / <1) 0.54 / 0.48			CR 57	
	Foam(Sash Only): 7138/Air/Clear (DS) 7/8"											
	0.117	0.625	0.117					AIR	0.027(#2)	CL	OF-S	N,G,S
	U-Factor 0.31			SHGC (N / <1) 0.30 / 0.27				VT (N / <1) 0.54 / 0.48			CR 57	
12	Foam(Sash Only): 7138/Argon/Clear (SS) 7/8"											
	0.090	0.688	0.090					ARG92	0.027(#2)	CL	OF-S	N,G,S
	U-Factor 0.28			SHGC (N / <1) 0.30 / 0.27				VT (N / <1) 0.54 / 0.48			CR 61	
	Foam(Sash Only): 7138/Argon/Clear (DS) 7/8"											
	0.117	0.625	0.117					ARG92	0.027(#2)	CL	OF-S	N,G,S
	U-Factor 0.28			SHGC (N / <1) 0.30 / 0.27				VT (N / <1) 0.54 / 0.48			CR 61	

**NFRC 100/200/500 Summary Sheet  
4100 / 4600 DuraGard XT Horizontal Slider**

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	
13	Foam(Sash Only): Clear/Air/7257 (SS) 7/8"											
	0.090	0.688	0.090					AIR	0.045(#3)	CL	OF-S	N,G,S
	U-Factor 0.32			SHGC (N / <1) 0.45 / 0.40				VT (N / <1) 0.55 / 0.49			CR	57
	Foam(Sash Only): Clear/Air/7257 (DS) 7/8"											
	0.117	0.625	0.117					AIR	0.045(#3)	CL	OF-S	N,G,S
	U-Factor 0.32			SHGC (N / <1) 0.44 / 0.39				VT (N / <1) 0.54 / 0.48			CR	57
14	Foam(Sash Only): Clear/Argon/7257 (SS) 7/8"											
	0.090	0.688	0.090					ARG92	0.045(#3)	CL	OF-S	N,G,S
	U-Factor 0.28			SHGC (N / <1) 0.45 / 0.40				VT (N / <1) 0.55 / 0.49			CR	61
	Foam(Sash Only): Clear/Argon/7257 (DS) 7/8"											
	0.117	0.688	0.117					ARG92	0.045(#3)	CL	OF-S	N,G,S
	U-Factor 0.28			SHGC (N / <1) 0.44 / 0.40				VT (N / <1) 0.54 / 0.48			CR	61
15	Foam(Sash Only): 7138/Argon/Clear/Argon/Clear (DS-SS-DS) 1"											
	0.117	0.250	0.090	0.438	0.117			ARG92	0.027(#2)	CL	OF-S	N
	U-Factor 0.26			SHGC (N) 0.28				VT (N) 0.49			CR	62
16	Foam(Sash Only): 7138/Argon/Clear/Argon/Clear (DS-SS-DS) 1"											
	0.117	0.250	0.090	0.438	0.117			ARG92	0.027(#2)	CL	OF-S	G,S
	U-Factor 0.28			SHGC (<1) 0.25				VT (<1) 0.44			CR	62
17	Foam(Sash Only): Clear/Argon/Clear/Argon/7257 (DS-SS-DS) 1"											
	0.117	0.250	0.090	0.438	0.117			ARG92	0.045(#5)	CL	OF-S	N
	U-Factor 0.23			SHGC (N) 0.41				VT (N) 0.50			CR	65
18	Foam(Sash Only): Clear/Argon/Clear/Argon/7257 (DS-SS-DS) 1"											
	0.117	0.250	0.090	0.438	0.117			ARG92	0.045(#5)	CL	OF-S	G,S
	U-Factor 0.23			SHGC (<1) 0.37				VT (<1) 0.44			CR	65
19	Foam(Frame & Sash): Clear/Air/Clear (SS) 7/8"											
	0.090	0.688	0.090					AIR		CL	OF-S	N,G,S
	U-Factor 0.44			SHGC (N / <1) 0.61 / 0.55				VT (N / <1) 0.63 / 0.56			CR	45
	Foam(Frame & Sash): Clear/Air/Clear (DS) 7/8"											
	0.117	0.625	0.117					AIR		CL	OF-S	N,G,S
	U-Factor 0.44			SHGC (N / <1) 0.60 / 0.54				VT (N / <1) 0.63 / 0.56			CR	45

**NFRC 100/200/500 Summary Sheet  
4100 / 4600 DuraGard XT Horizontal Slider**

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	
20	Foam(Frame & Sash): 7138/Air/Clear (SS) 7/8"											
	0.090	0.688	0.090					AIR	0.027(#2)	CL	OF-S	N,G,S
	U-Factor 0.31			SHGC (N / <1) 0.30 / 0.27				VT (N / <1) 0.54 / 0.48			CR 57	
	Foam(Frame & Sash): 7138/Air/Clear (DS) 7/8"											
	0.117	0.625	0.117					AIR	0.027(#2)	CL	OF-S	N,G,S
	U-Factor 0.31			SHGC (N / <1) 0.30 / 0.27				VT (N / <1) 0.54 / 0.48			CR 57	
21	Foam(Frame & Sash): 7138/Argon/Clear (SS) 7/8"											
	0.090	0.688	0.090					ARG92	0.027(#2)	CL	OF-S	N,G,S
	U-Factor 0.27			SHGC (N / <1) 0.30 / 0.27				VT (N / <1) 0.54 / 0.48			CR 61	
	Foam(Frame & Sash): 7138/Argon/Clear (DS) 7/8"											
	0.117	0.625	0.117					ARG92	0.027(#2)	CL	OF-S	N,G,S
	U-Factor 0.27			SHGC (N / <1) 0.30 / 0.27				VT (N / <1) 0.54 / 0.48			CR 61	
22	Foam(Frame & Sash): Clear/Air/7257 (SS) 7/8"											
	0.090	0.688	0.090					AIR	0.045(#3)	CL	OF-S	N,G,S
	U-Factor 0.31			SHGC (N / <1) 0.45 / 0.40				VT (N / <1) 0.55 / 0.49			CR 57	
	Foam(Frame & Sash): Clear/Air/7257 (DS) 7/8"											
	0.117	0.625	0.117					AIR	0.045(#3)	CL	OF-S	N,G,S
	U-Factor 0.31			SHGC (N / <1) 0.44 / 0.39				VT (N / <1) 0.54 / 0.48			CR 57	
23	Foam(Frame & Sash): Clear/Argon/7257 (SS) 7/8"											
	0.090	0.688	0.090					ARG92	0.045(#3)	CL	OF-S	N,G,S
	U-Factor 0.28			SHGC (N / <1) 0.45 / 0.40				VT (N / <1) 0.55 / 0.49			CR 61	
	Foam(Frame & Sash): Clear/Argon/7257 (DS) 7/8"											
	0.117	0.688	0.117					ARG92	0.045(#3)	CL	OF-S	N,G,S
	U-Factor 0.28			SHGC (N / <1) 0.44 / 0.40				VT (N / <1) 0.54 / 0.48			CR 61	
24	Foam(Frame & Sash): 7138/Argon/Clear/Argon/Clear (DS-SS-DS) 1"											
	0.117	0.250	0.090	0.438	0.117			ARG92	0.027(#2)	CL	OF-S	N
	U-Factor 0.26			SHGC (N) 0.28				VT (N) 0.49			CR 62	
25	Foam(Frame & Sash): 7138/Argon/Clear/Argon/Clear (DS-SS-DS) 1"											
	0.117	0.250	0.090	0.438	0.117			ARG92	0.027(#2)	CL	OF-S	G,S
	U-Factor 0.27			SHGC (<1) 0.25				VT (<1) 0.44			CR 62	



**NFRC 100/200/500 Summary Sheet  
4100 / 4600 DuraGard XT Horizontal Slider**

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) <small>Grids (None / &lt;1 / &gt;=1)</small>				Visible Transmittance (VT) <small>Grids (None / &lt;1 / &gt;=1)</small>			Condensation Resistance	
26	Foam(Frame & Sash): Clear/Argon/Clear/Argon/7257 (DS-SS-DS) 1"											
	0.117	0.250	0.090	0.438	0.117			ARG92	0.045(#5)	CL	OF-S	N
	U-Factor 0.23			SHGC (N) 0.41				VT (N) 0.50			CR	65
27	Foam(Frame & Sash): Clear/Argon/Clear/Argon/7257 (DS-SS-DS) 1"											
	0.117	0.250	0.090	0.438	0.117			ARG92	0.045(#5)	CL	OF-S	G,S
	U-Factor 0.23			SHGC (<1) 0.37				VT (<1) 0.44			CR	65

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.

This report is reissued in the name of Specialty Wholesale Supply through written authorization of Chelsea Building Products, to whom the original report was rendered. The original Chelsea Building Products report number is E7528.01-116-45.

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 July 15, 2020.

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:

REVIEWED BY:

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Dale C. White  
Simulation Technician  
NFRC Certified Simulator

---

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

DCW:dcw  
E7528.08-116-45

Attachments (pages):                      This report is complete only when all attachments listed are included.  
Appendix A: Drawings and Bills of Material(18)

### Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
.01R0	12/02/15	All	Original report issued to Chelsea Building products.
.08R0	01/18/17	All	Reissue report in the name of Specialty Wholesale Supply

All drawings and Bills of Material used to simulate this product are enclosed in this Appendix  
Some drawings may be omitted at the extruder's request.

## **Appendix A**

E7528.08-116-45



Report #: E7528-116-45

Date: 01/18/17

Verified by: *[Signature]*

444F  
MASTER FRAME

446B  
GLAZING BEAD

424B TOP RAIL

424B BOTTOM RAIL

206 SILL TRACK

**X = BASF Neopor F2300 Foam**

444F  
MASTER FRAME

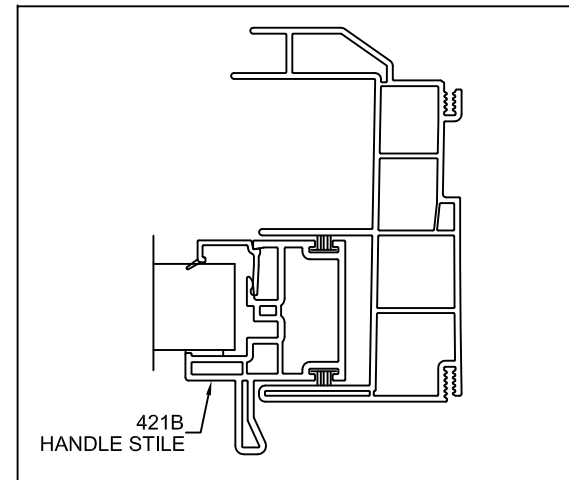
492B  
KEEPER STILE

446B  
GLAZING BEAD

480C  
COMPOSITE  
REBAR

494B  
LOCK STILE

475B  
HANDLE STILE



HANDLE OPTION

No.	REVISION	BY	DATE
2	446B BEAD WAS 466* ADDED 425 BEAD LAYER	EAS	01-16-07
1	ADDED WOOLPILE LAYER	EAS	03-14-06

**CHELSEA BUILDING PRODUCTS, INC.**

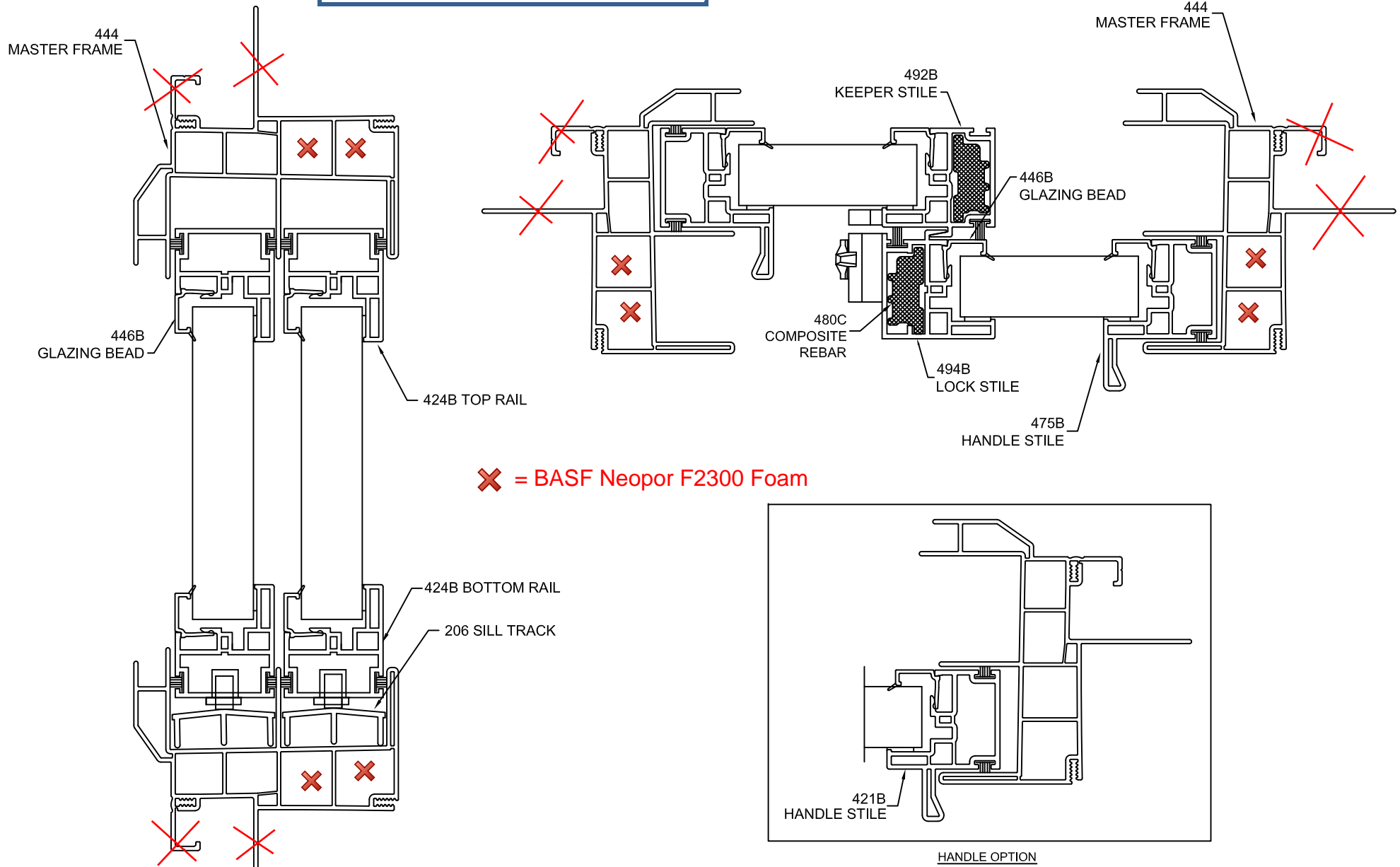
565 CEDAR WAY, OAKMONT PA 15139



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PRELIMINARY PART #			
TITLE 400-HS-T000 XX SLIDER 3-1/4" REPLACEMENT			
DRAWN BY: JPP	DESIGNED BY:	DATE 05-22-03	SCALE NTS-1
CHECKED BY:	APPROVED BY:	DRAWING No. 400S002	

Report #: E7528-116-45  
 Date: 01/18/17  
 Verified by: *[Signature]*



**X = BASF Neopor F2300 Foam**

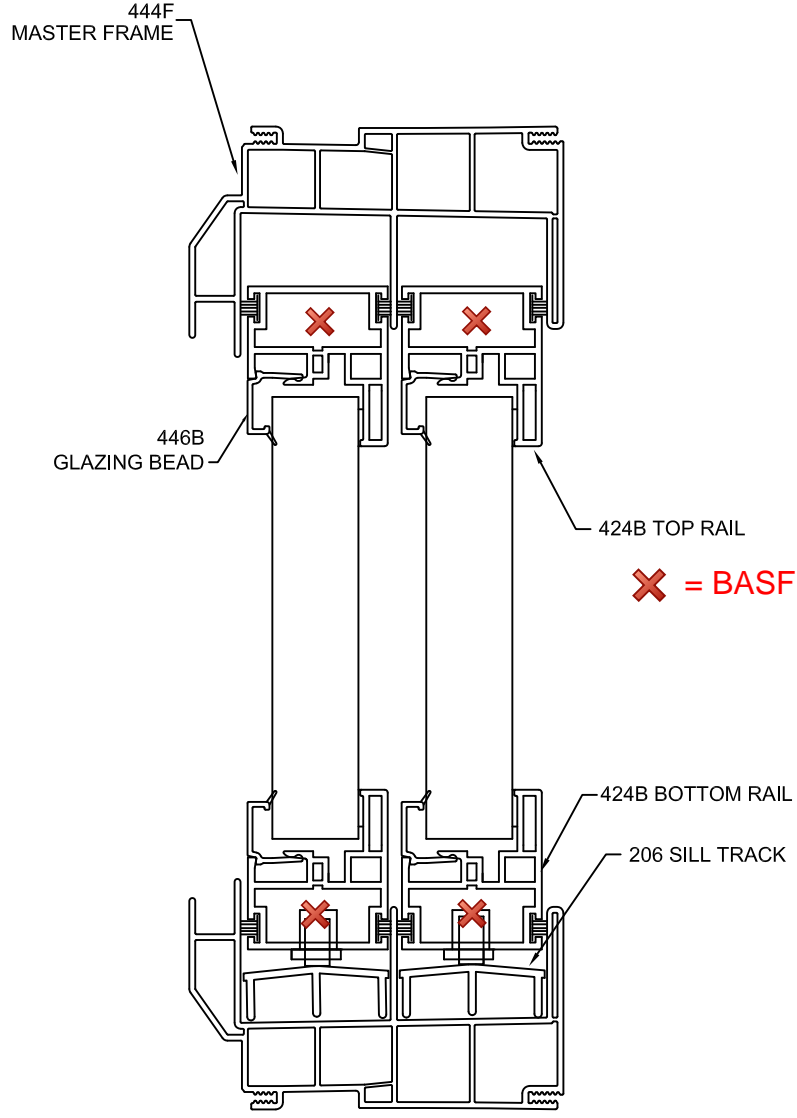
No.	REVISION	BY	DATE
2	446B BEAD WAS 466; ADDED 425 BEAD LAYER	EAS	01-16-07
1	ADDED WOOLPILE LAYER	EAS	03-14-06

**CHELSEA BUILDING PRODUCTS, INC.**  
 565 CEDAR WAY, OAKMONT PA 15139

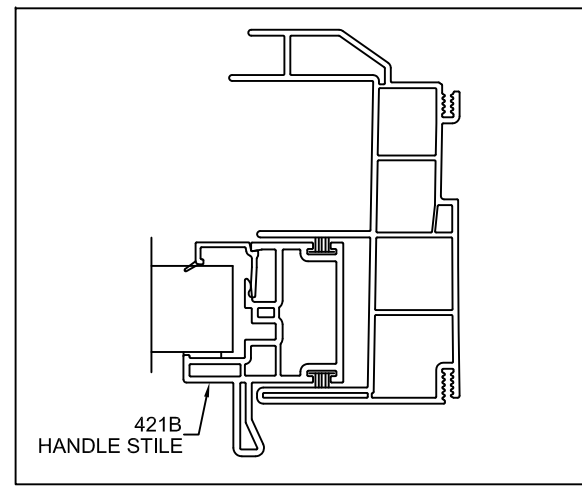
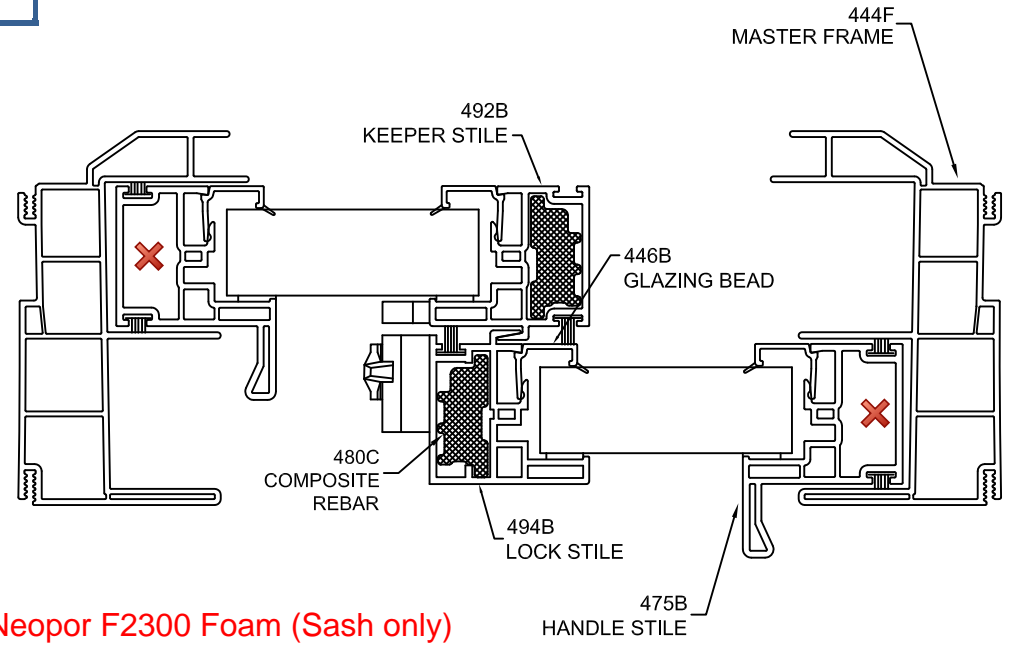
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PRELIMINARY PART #			
TITLE 430-HS-T000 XX SLIDER 3-1/4" NEW CONSTRUCTION			
DRAWN BY: JPP	DESIGNED BY:	DATE 05-22-03	SCALE NTS-1
CHECKED BY:	APPROVED BY:	DRAWING No. 430S002	


 Report #: E7528-116-45  
 Date: 01/18/17  
 Verified by: *[Signature]*





**X = BASF Neopor F2300 Foam (Sash only)**



HANDLE OPTION

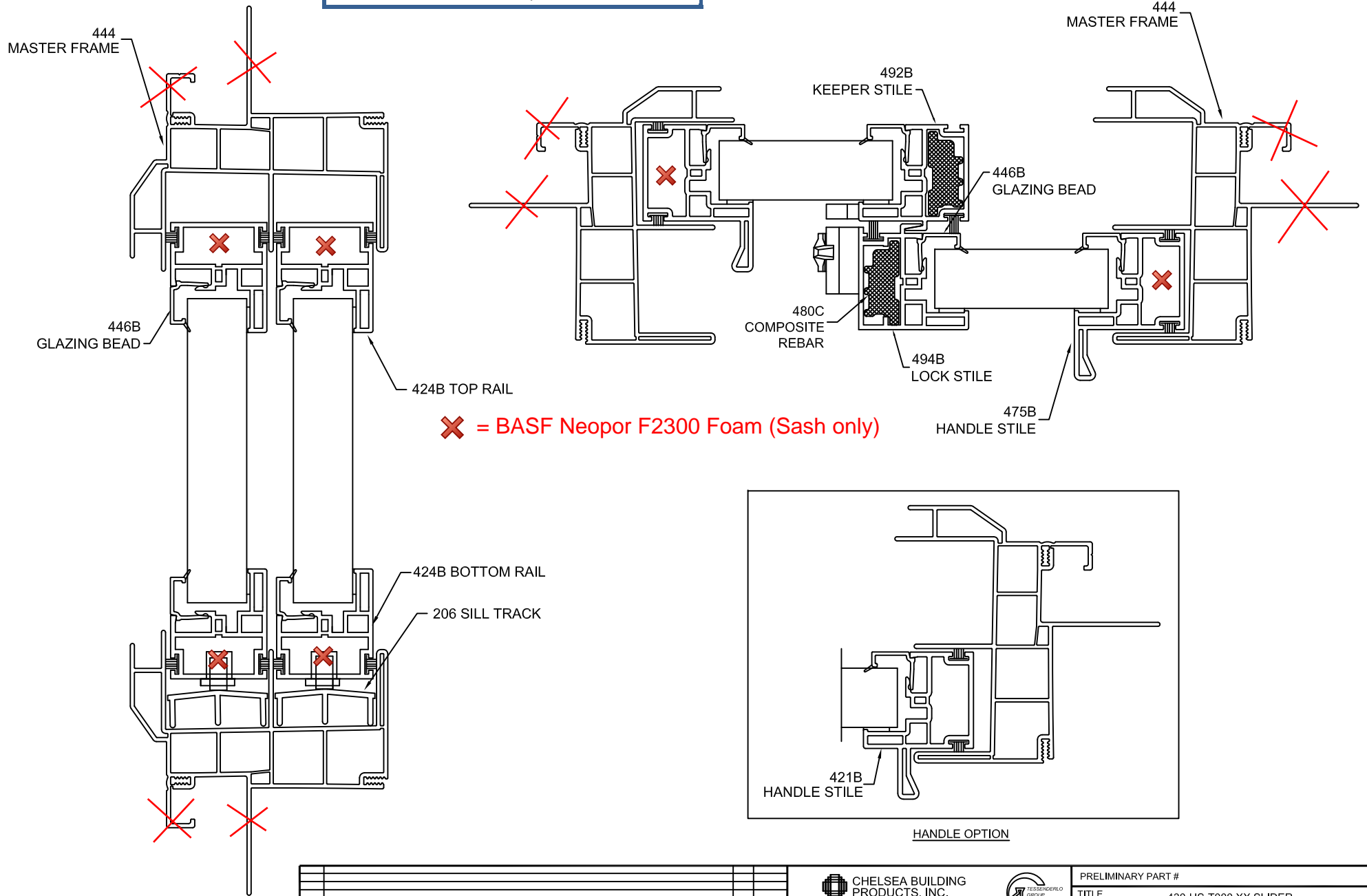
No.	REVISION	BY	DATE
2	446B BEAD WAS 466* ADDED 425 BEAD LAYER	EAS	01-16-07
1	ADDED WOOLPILE LAYER	EAS	03-14-06


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PRELIMINARY PART #			
TITLE 400-HS-T000 XX SLIDER 3-1/4" REPLACEMENT			
DRAWN BY: JPP	DESIGNED BY:	DATE 05-22-03	SCALE NTS-1
CHECKED BY:	APPROVED BY:	DRAWING No. 400S002	

Report #: E7528-116-45  
 Date: 01/18/17  
 Verified by: *[Signature]*



**X = BASF Neopor F2300 Foam (Sash only)**

No.	REVISION	BY	DATE
2	446B BEAD WAS 466* ADDED 425 BEAD LAYER	EAS	01-16-07
1	ADDED WOOLPILE LAYER	EAS	03-14-06

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PRELIMINARY PART #			
TITLE 430-HS-T000 XX SLIDER 3-1/4" NEW CONSTRUCTION			
DRAWN BY: JPP	DESIGNED BY:	DATE 05-22-03	SCALE NTS-1
CHECKED BY:	APPROVED BY:	DRAWING No. 430S002	