



*Superseal Manufacturing Co., Inc.*

*SIMULATION PERFORMANCE &  
SOLAR HEAT GAIN REPORT*

*"1650"  
Casement*

*NCTL-110-9579-01a  
(Revised: 06/10/08)*



# NATIONAL CERTIFIED TESTING LABORATORIES

FIVE LEIGH DRIVE • YORK, PENNSYLVANIA 17406 • TELEPHONE (717) 846-1200  
FAX (717) 767-4100  
www.nctlinc.com

## Thermal Performance, Solar Heat Gain Coefficient, Visible Transmittance and Condensation Resistance Calculation Report

**REPORT NO:** NCTL-110-9579-01a  
**SIMULATION DATE:** 04/07/05  
**REPORT DATE:** 04/07/05  
**REVISION DATE:** 06/10/08

**Client:** *Superseal Manufacturing Co., Inc.  
125 Helen St., P. O. Box 795  
South Plainfield, NJ 07080*

**Product Line:** *Superseal Manufacturing Co., Inc.'s Series "1650" Vinyl Casement Prime Window*

**Specification:** *NFRC 100-2004: "Procedure for Determining Fenestration Product U-Factors".  
NFRC 200-2004: "Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence".  
NFRC 500-2004: "Procedure for Determining Fenestration Product Condensation Resistance Values".  
Therm 5.x / Window 5.x NFRC Simulation Manual (Approved at test date)*

**Procedures and Compliance:** *All U-factor, Solar Heat Gain Coefficients, Visible Transmittance and Condensation Resistance values were calculated using the following characteristics: a default value of 0.30 solar absorptance for all products other than window glazed wall and sloped glazing which have a solar absorptance of 0.50. The best glazing option was used as the configuration for SHGC and VT specialty products table. NCTL is a NFRC accredited simulation laboratory and this simulation was conducted in full compliance with NFRC requirements. This report does not constitute an opinion or endorsement by the laboratory. Ratings values included in this report are for submittal 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. Rounding per IEEE/ASTM SI 10-1997 except section 5.4.1.3. (L.4.9.A.1-6, A.7.a, h.a, 21, 17, 18)*

### PRODUCT LINE DESCRIPTION

*(L.4.9.A.7.a-b, g, h)*

**General:** *The product line modeled is Superseal Manufacturing Co., Inc.'s Series "1650" Vinyl Casement Prime Window.*

**Model Size Simulations:** *600mm x 1500mm {23.622" x 59.055"}*

# ***ATTACHMENT C***

(L.4.9.18)

***Additional Options Added  
(06/10/08)***

***Thermal Performance, Solar Heat Gain Coefficient, Visible Transmittance and  
Condensation Resistance Calculation Report***

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***Product Line:*** *Superseal Manufacturing Co., Inc.'s Series "1650" Vinyl Casement Prime  
Window*

***Revision:*** *Solarban 70XL Additonal options added.*  
*(L.4.9.A.18)*

**Individual Product Descriptions and Model Size Matrix of U-Factors**

*All U-factors are given in BTU/HR/ft<sup>2</sup>/°F*

*(L.4.9.A.7 d, e, f, A.8.c, A.12, A.24, NFRC 500 4.4)*

Prod #	Glazing Descriptions								U-Factor	CR	Ref. Notes
	Exterior Lite	Gap	Spacer	Center Lite	Gap	Interior Lite	Grids	Glazing ID			
004	Clear – 3mm	0.514" Air	Super Spacer			Clear – 3mm	N, G	4	0.41	45	
005	PPG "Solarban 70XL" (e=0.018) – 3mm	0.514" Air	Super Spacer			Clear – 3mm	N, G	5	0.29	59	
006	PPG "Solarban 70XL" (e=0.018) – 3mm	0.514" Arg	Super Spacer			Clear – 3mm	N, G	6	0.27	63	
007	PPG "Solarban 70XL" (e=0.018) – 3mm	0.514" Arg	Super Spacer			PPG "Solarban 70XL" (e=0.018) – 3mm	N, G	7	0.26	63	
008	PPG "Solarban 70XL" (e=0.018) – 3mm	0.514" Kry	Super Spacer			Clear – 3mm	N, G	8	0.26	64	
009	PPG "Solarban 70XL" (e=0.018) – 3mm	0.514" Kry	Super Spacer			PPG "Solarban 70XL" (e=0.018) – 3mm	N, G	9	0.26	65	

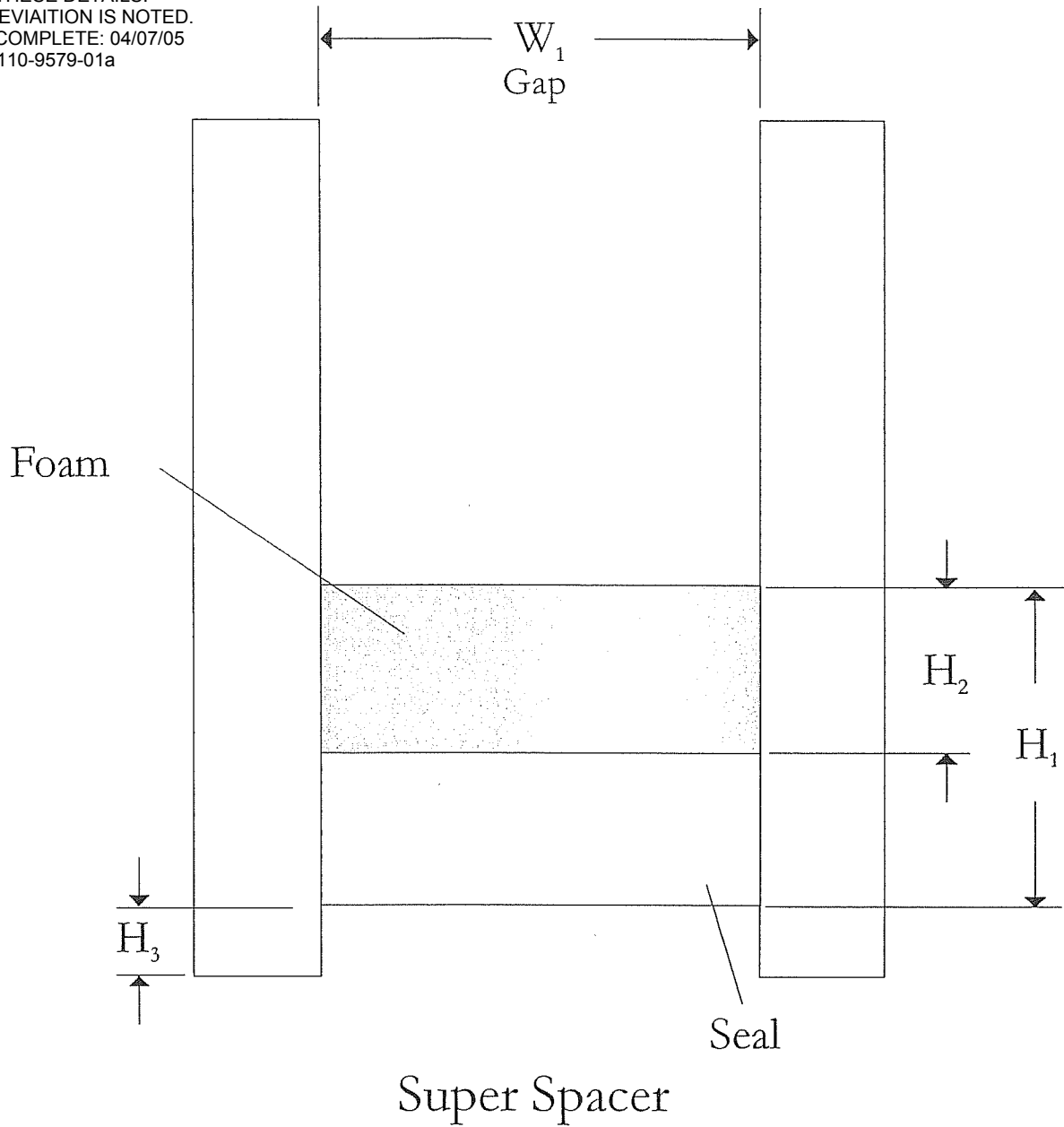
**Individual Product Descriptions and Model Size Matrix of SHGC & VT**

*Solar Heat Gain Coefficient and Visible Transmittance*

*(L.4.9.A.8.c, A.12, NFRC 500 4.4)*

Prod #	Glazing Description							No Dividers		Dividers <1"		Dividers >1"		Ref. Notes
	Exterior Lite	Gap	Spacer	Center Lite	Gap	Interior Lite	Glazing ID	SHGC	VT	SHGC	VT	SHGC	VT	
004	Clear – 3mm	0.514" Air	Super Spacer			Clear – 3mm	4	0.50	0.52	0.46	0.47	0.41	0.42	
005	PPG "Solarban 70XL" (e=0.018) – 3mm	0.514" Air	Super Spacer			Clear – 3mm	5	0.18	0.41	0.17	0.37	0.15	0.33	
006	PPG "Solarban 70XL" (e=0.018) – 3mm	0.514" Arg	Super Spacer			Clear – 3mm	6	0.18	0.41	0.16	0.37	0.15	0.33	
007	PPG "Solarban 70XL" (e=0.018) – 3mm	0.514" Arg	Super Spacer			PPG "Solarban 70XL" (e=0.018) – 3mm	7	0.17	0.32	0.15	0.29	0.14	0.26	
008	PPG "Solarban 70XL" (e=0.018) – 3mm	0.514" Kry	Super Spacer			Clear – 3mm	8	0.18	0.41	0.16	0.37	0.15	0.33	
009	PPG "Solarban 70XL" (e=0.018) – 3mm	0.514" Kry	Super Spacer			PPG "Solarban 70XL" (e=0.018) – 3mm	9	0.17	0.32	0.15	0.29	0.14	0.26	

TEST SPECIMEN COMPLIES  
WITH THESE DETAILS.  
ANY DEVIATION IS NOTED.  
TEST COMPLETE: 04/07/05  
NCTL-110-9579-01a



Spacer Dimensions -Fill dimensions where applicable - Please fill out a spacer sheet for each spacer used whether spacer type or size.

Gap	Primary Seal	Secondary Seal	Material	Fill
<input type="checkbox"/> W <sub>1</sub> <u>.514</u> "	<input checked="" type="checkbox"/> Butyl	<input type="checkbox"/> Butyl	<input type="checkbox"/> Aluminum	<input type="checkbox"/> Dessicant
<input type="checkbox"/> W <sub>2</sub> _____ "	<input type="checkbox"/> PIB	<input type="checkbox"/> PIB	<input type="checkbox"/> Steel - Mild	<input type="checkbox"/> Air
<input type="checkbox"/> W <sub>3</sub> _____ "	<input type="checkbox"/> Polysulphide	<input type="checkbox"/> Polysulphide	<input type="checkbox"/> Steel - Stainless	<input type="checkbox"/> Other _____
<input type="checkbox"/> W <sub>4</sub> _____ "	<input type="checkbox"/> Silicone	<input type="checkbox"/> Silicone	<input type="checkbox"/> Steel - Galvanized	
<input type="checkbox"/> H <sub>1</sub> <u>.375</u> "	<input type="checkbox"/> Urethane	<input type="checkbox"/> Urethane	<input type="checkbox"/> Vinyl	
<input type="checkbox"/> H <sub>2</sub> <u>.188</u> "	<input type="checkbox"/> None	<input type="checkbox"/> None	<input type="checkbox"/> Foam _____	
<input type="checkbox"/> H <sub>3</sub> _____ "	<input type="checkbox"/> Other _____	<input type="checkbox"/> Other _____	<input type="checkbox"/> Other _____	
<input type="checkbox"/> H <sub>4</sub> _____ "				
<input type="checkbox"/> H <sub>5</sub> _____ "				
<input type="checkbox"/> T <sub>1</sub> _____ "				