

**SUMMARY OF QUADWALL® / PENTAGLAS® TEST DATA AND RESULTS**

Test Description	CPI #'s	*Test Procedure	Results & Comments
1. Flammability			
• Self-Ignition	211	ASTM 1929-3	1058°F
• Smoke Density of Plastic	210	ASTM D-2843	54%
• Burning Extent	212B	ASTM D-635	CCI rating-less than 1.0" burn extent
• Interior Flame Spread	213A	ASTM E-84	Several ratings are available:
And Smoke Development	215	CAN/ULC,S102.2-M88	Class A, B, or C (I,II,III)
• Exterior Class "A" Roof Construction-Optional	214	ASTM E-108, UL790/UBC 32-7	A special Quadwall® configuration is listed and labeled for Class "A" rating by independent recognized laboratory. Class "B" or "C" are available
2. Weathering			
• 10 yr Florida Weathering Eval	414, 415	ASTM E-330, E695, E-1886,1996	Impact loading, Large missile, Uniform Air load and Cyclic wind loading shall not decrease after 10 years exposure to Florida weather
Weathering Evaluation	410	ASTM D4364-84	Successful exposure to concentrated natural sunlight radiation of 56000 MJ/M <sup>2</sup> (1540 MJ/M <sup>2</sup> of U.V.) at New River Site, Arizona.
• Color Change	412	ASTM D2244	No more than 3.0 units Delta E after 60 months.
• Light Transmission	413	ASTM D1003	Shall not decrease more than 6% after 10 years.
• Heat Exposure Evaluation (weathering effect-tendency for potential failure)	411	300°F, 25 mins.	The interior and exterior faces do not darken more than 0 units Delta L/ASTM D2244, and 0% Light Transmission/ ASTM D 1003.
3. Water Penetration	320, 324	ASTM E-331	No penetration at test pressure per AAMA 501 recommendation
4. Air Infiltration	321, 325	ASTM E-283/NFRC 400	Pass requirements per NFRC 400
5. Impact	514	ATSM E-822-81	Panel repels hailstones of 1-3/16" at velocity 82"/sec. – no penetration
Missile Impact Level D	502A/B	ASTM 1886&ASTM E1996	Successfully tested for 350 Ft. Lbs.
Large Missile Impact	512,521 520A/B,	FBC 2004, TAS 201-94	Successfully tested per S. Florida hurricane large missile cannon test for 350 Ft-Lbs.
Impact Loading	512A/B	ASTME 695	Successfully tested for 500 Ft. Lbs.
6. Accelerated Delamination	411	300°F, 25 mins. & Sub-zero temp.	The faces do not become readily detached No delamination occurs under load.
7. "U" Factor Quadwall- 2 Panels	310B,	Per NFRC 100	0.23 to 0.08 Center of Glass (2 panel assembly)
"U" Factor Pentaglas- 1 Panel	310A/C		0.48 to 0.38 Center of Glass (1 panel assembly)
8. SHGC Quadwall – 2 panels	412	Calorimeter	0.08 to 0.41 (as required)* (2 panel assembly)
SHGC Pentaglas - 1 Panel	412	Calorimeter	0.26 to 0.74 (as required)* (1 panel assembly)
9. Polycarb Expansion/Contraction		Linear thermal expansion	0.0000375 in/in/°F
10. Code Compliance Eval. Reports	110, 111	ICC Evaluation Reports	ICC ER-4798; 94160
	124	Dade Cty Hurricane Resist.	Dade County Approval #05-1207.01
	125	Florida Building code	FL6475, FL6599, FL6600, FL8804
11. OSHA Compliance – Point Load	515	29 CFR 1910,23 (e) (8)	300 lb. Point load with no damage
12. OSHA Compliance - Fall Protection/ /Walk through	502abc 512, 520	ASTM E 695-03	500 Ft. Lbs
13. ISO Quality Standard	115	SI ISO 9002	Pentaglas® / Quadwall® complies with Quality Management Standard SI ISO 9002 – Certificate #10700

The above listed test reports are available and can be submitted upon request.




Committed to Fire Safety

# **ITS** Intertek Testing Services



February 25, 1999

Mr. Jim Sooley  
CPI International, Inc.  
28662 N. Ballard Dr.  
Lake Forest, IL 60045

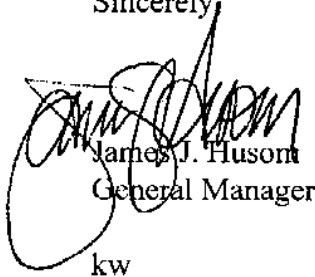
Fax: 847-816-0425

Re: The Warnock Hersey  Certification Mark

Dear Jim:

This is to confirm that the Warnock Hersey  Certification Mark is the mark utilized by Intertek Testing Services for all building products. CPI translucent panel systems are certified with the Warnock Hersey  Certification Mark, by Intertek Testing Services. CPI is also under our Follow-Up Inspection Program for external fire exposure per ASTM E108 (NFPA 256, UBC 15-2, UL 790 and ULC-S107).

Sincerely,

  
James J. Huson  
General Manager  
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**Intertek Testing Services NA Inc.**

8431 Murphy Drive, Middleton, WI 53562

Telephone 608-836-4400 Fax 608-831-9279 Home Page [www.worldlab.com](http://www.worldlab.com)