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01 September 2010

Fred L. Holtzman, AIA, PE
Wisconsin Solar Design
6333 University Ave.
Middleton, WI 53562

RE: Intertek-Warnock Hersey Test Reports # 764-11946-01, 764-11946-02 and 12759-764

Dear Mr. Holtzman:

I have reviewed the subject test reports as well as current versions of the test standards referenced in the reports. There have been no substantive changes in the test methods, equipment requirements or reporting of results that would affect the performance or outcome of the tests for Air Infiltration (ASTM E283), Water Penetration (ASTM E331) or thermal performance (NFRC 100/ASTM C1199/ASTM E1423).

It is therefore my conclusion that if these tests were conducted again on the same product design to current versions of the standards referenced, the results would be substantially identical within the tolerances specified in the test methods.

Please be advised that Intertek has not verified that the current design and construction of the Wisconsin Solar Design product is the same as that tested in the subject test reports. However, if the design and construction is the same, Intertek considers the subject test reports to be valid.

Sincerely,

Rick Curkeet, PE
Chief Engineer – Building Products

REPORT

WHI TEST REPORT #764-11946-01
AIR INFILTRATION AND WATER PENETRATION
TESTS OF A
SKYLIGHT
FOR
WISCONSIN SOLAR DESIGN
MIDDLETON, WISCONSIN 53562
TEST DATE: AUGUST 8, 1994

WHI TEST REPORT #764 - 11946 - 01

AIR INFILTRATION AND WATER PENETRATION TESTS OF A SKYLIGHT

FOR

WISCONSIN SOLAR DESIGN
6349 BRIARCLIFF LANE
MIDDLETON, WISCONSIN 53562

BY

WARNOCK HERSEY, INC.
8431 MURPHY DRIVE
MIDDLETON, WISCONSIN 53562

TEST DATE: AUGUST 8, 1994
REPORT DATE: AUGUST 15, 1994

INTRODUCTION

On August 8, 1994, Warnock Hersey, Inc. (WHI) conducted tests on a skylight at the WHI laboratory in Middleton, Wisconsin for Wisconsin Solar Design of Middleton, Wisconsin. The tests conducted are listed in the procedure section.

SPECIMEN DESCRIPTION

I. GENERAL

I.1 Manufacturer: Wisconsin Solar Design
I.2 Model: Skylight
I.3 Specimen type: Skylight
I.4 Configuration: Fixed

II. FRAME

II.1 Overall dimensions: 48½" wide by 74⅝" high
II.2 Structural material: Aluminum with rigid foam insulation

IV. SEALS/WEATHERSTRIP

IV.1 Silicone seals

V. GLAZING

V.1 Number of layers: 2 (¼" Bronze Solarcool tempered and ¼" clear tempered)
V.2 Coatings: Bronze Solarcool outside glass
V.3 Fill: ¾" air gap filled with air
V.4 Glass size(s): 44⅞" wide by 73" high by 1" thick
V.5 Glazing method: EDPM gasket and silicone

Drawings of the unit are on file at WHI.

PROCEDURE

The unit was installed in a test buck constructed of 2 x 6 lumber and 1/2" plywood, built with a rough opening of dimensions specified by the manufacturer. The following tests were conducted on the assembly:

Air infiltration per ASTM E 283 at test pressures of 1.57 and 6.24 PSF.

Water Penetration per ASTM E 331 at test pressures of 6.24 and 12.0 PSF.

All directional references such as left and right are from the view point of a person facing the interior side of the specimen. Area dimensions are given as (width) by (height).

RESULTS

AIR INFILTRATION:

Sample Area: 25.13 ft²

Test Number:	1	2
Test Pressure: (PSF)	1.57	6.24
Total Leakage: (CFM)	<0.20(BDL*)	<0.20(BDL*)
Leakage per Square Foot Sample Area: (SCFM/ft²)	<0.05 (BDL*)	<0.05(BDL*)

(* BDL is Below the Detectable Limit. Total leakage was less than 0.20 CFM, which is the detectable limit of the equipment used, thus the leakage per square foot was below the detectable limits.)

WATER PENETRATION:

Test Number:	1	2
Test Pressure: (PSF)	6.24	12.0
Time of Failure: (Minutes: Seconds)		
Result: (PASS/FAIL) (Pass = No water leaked over sill)	PASS	PASS

REVISED: April 28, 1995

CONCLUSIONS

The unit tested as tested per ASTM E 283 - Test Method Determining the Rate of Air Leakage Through Exterior Windows had an air leakage rate below the detectable limit of the equipment at 6.24 PSF and as tested per ASTM E 331 - Test Method for Water Penetration of Windows had no water leakage at 12.0 PSF.

Test Conducted by:

Russ Burt
Fenestration Technician

Report Reviewed by:

Jim Husom
Supervisor - Engineering

Report Prepared by:

Timm Schaeffer
Engineer