**FEBRUARY 2015**

**Notes to Specifier — 4" Skylight Windborne Specification**

Specifier- please consult Kalwall for assistance at info@kalwall.com or 1-800-258-9777. Some specification choices are very involved and should require consultation in order for the project’s performance to be as desired by the Owner and Architect.

**1.1 SUMMARY**

1.1.A.1. Kalwall 100 panels are 4” thick, flat only. Note: View Fact Sheet for 4” [Kalwall 100](http://www.kalwall.com/kalwall100.htm) panels and system.

1.1.B. Related Sections. ENTER any and all sections that may affect this spec.

**1.2 SUBMITTALS**

1.2.E.1.r. Kalwall skylights can be manufactured as approved UL 790 Class A Roof Covering systems. Consult local codes for requirement.

1.2.E.1.t. [LEED](http://www.kalwall.com/spec/leed-skylight-spec.doc) submittal requirements need to be written in consultation with manufacturer for accuracy.

1.2.E.1.u. Daylight Autonomy Report submittal requirements need to be coordinated with manufacturer prior to final specification. Large projects should be modeled to assist in achieving desired results. [More information about Daylight Modeling](http://www.daylightmodeling.com).

**1.4** **PERFORMANCE REQUIREMENTS**

1.4.A.3. ENTER any and all loads required for structural design in PSF. (loads in PSF ie; not wind speed for example)

1.4.B. Refer to [Windborne Debris Resistance – Hurricane Prone Regions](http://www.kalwall.com/spec/windborne-region.htm) for information needed to determine Missile Impact Requirements: Level of Protection, Wind Zone and Elevation above grade determine required missile. More than one type may be required on a project (walls and roofs may vary).

**1.6 WARRANTY**

1.6.B. Extended warranties may be available depending on project design, scope, location and exposure. Consult manufacturer; all additional cost. Options are:

* Up to 5 year Materials and Workmanship.
* Up to 10 year Limited Warranty covering separation of faces from grid core, and/or abnormal color change of the exterior face.
* Up to 20 year Limited Warranty against reinforcing fiberbloom.

Extended Warranties will not apply to all systems, designs, or applications. Please consult manufacturer.

**2.2 PANEL COMPONENTS**

2.2.A.2.a. Flame Spread

* Specify 50 for the standard panel, which meets IBC Class B Interior Finish requirements for most building spaces.
* Specify 25 which meets IBC Class A, which may be required in unsprinklered, occupied spaces or exitways - see IBC Chapter 8; or Canopies IBC Section 3105.4 which may require 25 flame spread also on the exterior.

ENTER 50 or 25

2.2.A.3.a. Color Stability

For standard exterior, enter 5 years exposure; if for UL Listed Class A Roof or Canopy, Class A face required: enter 3 years.

ENTER 5 or 3

2.2.A.4.a. Appearance exterior face sheets

* Missile D: ENTER .060” Hurricane Hi-impact (thick) and white (color).
* Missile C: ENTER .052” Hi-Impact (thick) and white (color).
* Missile A: ENTER .070” (thick) and white or crystal (standard color) or Kal-Tints (optional color).

CAUTION: Face colors affect solar properties. View [Light Transmission/SHGC Chart](http://www.kalwall.com/spec/lt-shgc.htm). Best to confer with Kalwall.

2.2.A.4.b. Appearance interior face sheets

* Standard interior faces, either flame spread, are .045” thick in white or crystal.
* Optional Hi-Impact face is .052” thick in white only.

ENTER 0.045” or 0.052” and appropriate color

**2.3 PANEL CONSTRUCTION**

2.3.A.2./3./4. Light Transmission, Solar Heat Gain Coefficient (SHGC) and panel U-factor are closely linked and must be specified accordingly. [View 4" Light Transmission/SHGC Chart](http://www.kalwall.com/spec/lt-shgc.htm).

ENTER appropriate values for each.

Furthermore, light transmission needs to be carefully chosen to meet the daylighting expectations of the owner to avoid too much light with resulting unwanted glare and overwhelming solar heat, or too little light to be useful. Kalwall offers a modeling service – see [www.DaylightModeling.com](http://www.DaylightModeling.com), which should be performed and agreed upon prior to final design and specification.

2.3.A.5. Panel U-factors specified above are for just the panel itself. The National Fenestration Rating Council has established standardized procedures for comparing fenestration systems based on a complete installed system. View the [NFRC Certified Systems values chart](http://www.kalwall.com/spec/nfrc.htm) for most Kalwall systems. In order to find the appropriate value, specifier must know the properties of the panel specified above as well as the nature of the installation system for the project.

ENTER the NFRC Certified System U-value.

2.3.A.6. Grid Pattern

Nominal size is 12” x 24” vertically oriented along the panel length, called Shoji pattern. Other common sizes are 8” x 20”; Square patterns, called Tuckerman - commonly 8” x 8” or 12” x 12”; custom sizes and patterns offered.

ENTER Nominal grid size(s) and Pattern

Caution, span charts are based on 12” x 24”, other patterns affect span capability. Contact Kalwall regarding the structural properties of other grid patterns.

2.3.E. Consult IBC or local Code authority for requirements. Standard skylight panels pass Class A Burning Brand; Optional UL 790 Class A Built Up Roof construction is more costly.

DELETE the option that's not appropriate for this project

**2.4** **BATTENS AND PERIMETER CLOSURE SYSTEM**

2.4.D. Finish

The standard finish for the perimeter system is factory applied paint in 13 standard colors meeting the performance of AAMA 2604. View the [Color Chart](http://www.kalwall.com/colorchip.htm).

ENTER Kalwall KCRF color and number

Option: unfinished “mill”

DELETE Finish not selected