

CERTIFICATE OF CONFORMANCE

Polar Wall[®] Plus Vinyl Siding

SPECIFICATIONS:

Polar Wall Plus

- Polystyrene backing meets or exceeds all the requirements of SPI specifications ASTM C-578-87A (type 1)

LONG TERM THERMAL PERFORMANCE:

The system "R"-Value for Polar Wall Plus was determined by ASTM C-236 "Guarded Hot Box" method. Polar Wall Plus products demonstrate no thermal drift with age. "R"-Values vary by profile as follows:

- | | |
|----------------|------|
| • D/4 | 2.88 |
| • D/5 Dutchlap | 3.53 |
| • D/6 | 3.57 |

IMPACT RESISTANCE:

Polar Wall Plus has been tested for impact resistance in accordance with ASTM D4226, with the following results:

- Standard vinyl siding – Failure at 60 in./lbs.
- Polar Wall Plus siding – Failure at 235 in./lbs.

DESIGN WINDLOAD

Polar Wall Plus has been tested for windload resistance in accordance with ASTM D5206 to the following:

- Static Windload Test Pressure 60 psf
- Design Windload = 215mph*

*The MPH wind speed reported above is calculated using the VSI Wind speed Calculation Guidelines. It is an estimate of wind speed resistance given one uniform set of assumptions. Please note that vinyl siding is a decorative covering that is not intended to provide structural reinforcement to a wall. The wind resistance of a wall system may be less than the maximum wind speed rating for a siding product and will not be increased as a result of installing vinyl siding.

WARRANTY:

- The structural lamination integrity & thermal performance of Polar Wall Plus is guaranteed for twenty (20) years.
- Vinyl Siding component carries a Lifetime Warranty against manufacturing defects.
- Limited Lifetime Fade Warranty to a color change of 3 standard color units.

FIRE RESISTANCE (for vinyl siding only, not foam)

All siding, soffit and accessories distributed through Norandex have a Class 1 flame spread classification per 1997 Uniform Fire Code.

ASTM E84:

Flame Spread Index ≤20
Smoke Developed Index >450
Fuel Contribution 0

ASTM D1929:

Self-Ignition temperature 780°F

PHYSICAL DATA:

Polystyrene Thickness (Nominal)

- D/4 – 1-1/8"
- D/5 Dutchlap – 1-1/8"
- D/6 – 1-1/4"

Vinyl Siding Thickness

- .044" (+/- .001")

SAFE TO USE:

Polar Wall Plus products are environmentally friendly & fully recyclable. They are constructed from inert organic materials and contain no CFC's, HCFC's or Formaldehyde.

THERMAL EXPANSION:

Polystyrene is very compatible with vinyl siding due to their nearly identical coefficients of expansion & contraction. Polystyrene coefficient of thermal expansion is .000035 in./in./degree F. Vinyl siding will range from .000031 to .000036 in./in./degree F.

POLYSTYRENE SPECIFICATIONS:

- Density: Nominal 1.0 pound per cubic foot. (Test method ASTM C-303)
- Flammability: Polar Wall Plus is fabricated using modified expandable polystyrene, treated with a fire retardant chemical, and will not support combustion. Although "Modified EPS" contains a flame-retardant agent, it is an organic material and should therefore be considered flammable if exposed to an open flame or ignition source.
- Water Permeability: Not less than 5.0 perm/inch maximum (Test method ASTM E-96).
- Polystyrene breathes and is not a vapor barrier.
- Water Absorption: Less than 4.0% by volume. (Test method ASTM C-272)
- Capillarity: None

COLORS:

White, Champagne, Cream, Silver, Tan, Almond, Dune, Linen, Hazel*, Ivy*, Tumbleweed*, Cobblestone*, Saddle*, Granite*, Wedgewood*, Russet*

* Premium colors featuring ColorHold[®] capping resins, a UV-Stable acrylic polymer.

SOUND TRANSMISSION CLASS RATING – 37*

* The STC (Sound Transmission Class) rating was calculated in accordance with ASTM E 413 *Classification for Rating Sound Insulation*.

Construction: The test wall was constructed of 2" X 4" wood studs spaced 16" on center. One layer of 1/2" Type X gypsum wallboard fastened to the interior side of the wall system. The stud cavities were insulated with R-13 fiberglass insulation. One layer of 7/16" thick Oriented Strand Board (OSB) was attached to the exterior side of the wall system. Polar Wall Plus D5 insulated vinyl siding was hung over the OSB.

ASTM D635 (for vinyl siding only, not foam):

Classified CC1**

*Tested Specimens did not burn to 25mm mark. Material was shown to be self-extinguishing. Therefore no average time of burning or average extent of burning can be calculated. For more info, obtain a brochure on the fire properties of siding by contacting the Vinyl Siding Institute at www.vinylsiding.org.

RELEVANT CODES AND REGULATIONS COMPLIANCE – on the vinyl siding only (D4 and D5DL)

ASTM D-3679, UBC 14-2, Florida Building Code Approval-FL4617, Texas Department of Insurance EC-43, ICC Evaluation Service Report #1020



Seal Holder Since 1990

