

CERTIFICATE OF CONFORMANCE

Polar Wall® Plus Vinyl Siding

MATERIAL SPECIFICATIONS

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

PHYSICAL DATA

Polystyrene Thickness (Nominal)

D4 - 1 1/8"

D5DL - 1 1/8"

D6 - 1 1/4"

Vinyl Siding Panel Thickness: .046" (+/- .001")

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

- Polystyrene breathes and is not a vapor barrier.
- **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)
- **Water Absorption:** Less than 4.0% by volume. (Test method ASTM C-272)
- **Capillarity:** None

LONG TERM THERMAL PERFORMANCE

The system "R"-Value for Polar Wall Plus was determined by ASTM C-1363

R-Values vary by profile as follows:

D4	2.34
D5DL	2.42
D6	2.48

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.

Design Windload

Polar Wall Plus has been tested for windload resistance based on ASTM D3679-17, ASCE 7-16, 30 ft. high, Exposure B to the following:

Max Sustained Windload Test Pressure:	56.7 psf
Standard Windload Design Pressure Rating:	76.0 psf
Maximum Windspeed:	177 mph

All Norandex siding has been tested per ASTM D 5206 for resistance to negative wind load pressures when installed with nails positioned 16" on center.

PROFILES

D4

2-4" Exposure
12'6" Length
12 pieces/carton
1 squares/carton

D5 Dutchlap

2-5" Exposure
12' Length
10 pieces/carton
1 squares/carton

D6

2-6" Exposure
12'6" Length
8 pieces/carton
1 squares/carton

COLORS (20)

- White
- Linen
- Almond
- Tan
- Champagne
- Cobblestone *
- Cream
- Tumbleweed *
- Mocha *
- Russet +
- Firebrick +
- Ivy *
- Khaki *
- Olive *
- Silver
- Smoke *
- Granite *
- Wedgewood *
- Steel Blue +
- Graphite +

* Premium Colors featuring ColorHold® capping resins, a UV-Stable acrylic polymer
+ Designer Collection Color

FIRE RESISTANCE (for vinyl siding only, no foam)

All siding, soffit, and accessories distributed by Norandex have a Class A flame spread classification per 2021 International Residential Code (IRC) and International Building Code (IBC).

ASTM E84:

Flame Spread Index: ≤20

Smoke Developed Index: >450

Fuel Contribution: 0

ASTM D1929:

Self-Ignition Temperature: 860°F

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

Classified: CC1**

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

Impact Resistance

Polar Wall Plus has been tested for impact resistance in accordance with ASTM D4226, with the following results: >60 in./lbs.

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 4 standard color units.

SOUND TRANSMISSION CLASS RATING - 37

The STC (Sound Transmission Class) rating was calculated in accordance with ASTM E413.

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.

RELEVANT CODES AND REGULATIONS COMPLIANCE

ASTM D-7793, Florida Building Code Approval - FL12500. Vinyl Siding Only: ASTM D-3679, Intertek CCRR-0184
Vinyl Siding Institute (VSI) PCL-0802, PER-0803