

TYPICAL PHYSICAL PROPERTIES:

DENSITY (lb/ft³):

OPEN CELL CONTENT

DIMENSIONAL STABILITY: (% by volume)

VAPOR PERMEANCE

SOUND TRANSMISSION CLASS:

BIO BASED CONTENT

VOC CONTENT

FUNGI RESISTANCE

THERMAL RESISTANCE: R-Values (Aged):

R-Value at 1"

R-Value per inch ≥ 4 "

FIRE PERFORMANCE CHARACTERISTICS:

ASTM E-84: Class A (Class I)

NFPA 286 Appendix X

NFPA 286



TEST METHOD

ASTM D-1622

ASTM D-6226

ASTM D-2126

-20°F

158°F 100% R.T.

Humidity

158°F Dr y

ASTM-E96

ASTM E-90

ASTM D-6866

CA01350

ASTM C-1338

ASTM-C518

Flame Spread

Ignition Barrier Test

15-minute Thermal Barrier with DC315 Thermal Barrier Coating

VALUES

Nominal 0.40

>92%

-0.20

0.40

-0.30

11.5

39

15%

Exceeds criteria

No growth

R-3.7

R-3.75

Flame <15

Smoke <300

50-50A Ignition Barrier Coating

Meets Criteria



**NATURAL
POLYMERS**

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Natural-Therm™

LIGHT

HIGH YIELD

Performance



how it works...

Natural-Therm™ Light is a high performance polyurethane low density open cell foam product that is used for insulating new walls, ceilings and floor components. The chemical formulation is specifically designed to be spray to achieve a high yielding application. What does this mean to the contactor? More coverage per set of material. More cost saving on a job to job basis.

It is assumed that the operator is familiar with spraying polyurethane foam and spray polyurethane foam equipment in order to understand and correctly install Natural-Therm™ Light. Only operators that are properly trained may use this product. Consult the manufacturer or the distributor for more info.

SURFACE PREPARATION

Surfaces to receive NATURAL-THERM® LIGHT must be clean and dry, free of dirt, oil, solvent, grease, loose particulates, frost, ice and other foreign matter which could inhibit adhesion. Moisture content and surface conditions of substrate are critical to adhesion of NATURAL-THERM® LIGHT and need to be verified by installing contractor in small test areas before proceeding with full application.

Plywood, OSB, and lumber shall not have greater than 18% moisture content. Generally, a primer is not required for these surfaces. On substrates where the moisture content cannot be determined or exceeds 15%, a suitable primer is recommended. Adhesion spray tests may be performed with insulating foam and the interface line checked upon cure for good cell structure and adhesion. Warming of these surfaces during winter conditions may increase adhesion.

PRODUCT APPLICATION

Natural-Therm® LIGHT should only be applied to approved substrates in 1-inch to 6-inch lifts. This procedure is in accordance with the manufacturer's recommendations detailed in the application manual.

Operating Parameters:

Primary A Heater: 140 °F
Primary B Heater: 140 °F
Hose Heat: 140 °F
Operating Pressure: 1200 PSI

Chemical Specifications:

Density: 0.40 lb
Yield: 18,000-21,000 Board feet
Type: Open Cell
Blowing agent: Water
Cream time: 1.5 seconds
Cure time: 20 seconds

YIELD

To obtain maximum yield and performance characteristics, foam should be sprayed onto a flat surface and measured for shrinkage by inserting a measuring stick into freshly sprayed foam and marking the edge of the stick at the point where the surface of the foam has cured. Wait two minutes after final cure and inspect for shrinkage. If shrinkage occurs, the hose heat should be reduced by two degrees F and another sample should be sprayed and checked again for shrinkage. If the foam continues to shrink, the primary A & B heaters should be reduced by two degrees F. This alternating procedure of reducing hose heat and primary heat should be repeated until the foam shows no sign of shrinking.

EQUIPMENT

The proportioning equipment shall be manufactured specifically for heating, mixing, and spray application of polyurethane foam and be able to maintain 1:1 metering with a +2% variance and adequate main heating capacity to deliver heated and pressurized materials up to 150°F. Heated hose must be able to maintain preset temperatures for the full length of the hose. Minimum 2:1 on the A side and 1:1 on the B side ratio feeder pumps are required to supply stored materials through minimum ½-inch supply hoses. Pressurized and heated tanks systems may be used if sized appropriately to provide adequate flow at maximum operating capacity and temperatures.

Guns such as **D-gun, Gap Pro, Fusion-gun, Probler** with tip size approximately 16 lbs./min are suitable for most residential applications. Commercial cold storage, freezer applications, and large metal buildings may utilize higher output guns.

SPRAYING

Thin "flash passes" to very cold surfaces are not recommended. Thin passes (1/4" or less) should be avoided. They may result in reduced yield and loss of adhesion. It is recommended that the total design thickness be completed each day.

This spray system should be applied in uniform minimum pass thickness of 1-inch, maximum pass thickness 10-inches. Application temperatures below 32°F may require reduction in single pass application thickness. Additional thickness may be applied after a note no waiting period for ½ pcf foams they cool down fast you may spray multiple pass over the same lift. Yield and in-place-density is dependent upon the temperature of the

