

DuPont™ Styrofoam™ Brand Deckmate™ Plus Extruded Polystyrene Insulation

Overview

DuPont Styrofoam Brand Deckmate Plus Extruded Polystyrene Insulation is designed specifically to provide membrane support for conventional low slope roof applications. Styrofoam Brand Deckmate Plus Insulation is an extruded polystyrene foam. The board has smooth, high density skins, with a closed cellular structure.

Features and Benefits

- » Meets ASTM C578, Type IV (25 psi)
- » Easy to handle, cut and install
- » Low water absorption
- » Durable and reusable

Product Characteristics

Styrofoam Brand Deckmate Plus Insulation can be used over various substrates in new construction, and for thermal upgrading of existing roofing when reroofing is required. Roof substrate must be clean, dry, smooth and free from oil, grease, rust, frost, and snow. The roof system must be designed to meet all applicable building codes. Flute spanability – maximum flute spanability is 1-3/4" for 1" product, 3" for 1-1/2" product, 4-3/8" for 2" product or greater.

Caution: Use a temporary white covering over dark membranes or immediately cover with pavers or stone to prevent excessive heat exposure to the foam board.

Deckmate Plus cannot be installed directly over coal tar pitch roof surfaces or existing PVC membranes. Carlisle Sure-Flex™ PVC and Sure-Seal® EPDM require an approved cover board.

Review Carlisle specifications and details for complete installation information.

Precautions

Do not leave DuPont Styrofoam Brand Deckmate Plus Extruded Polystyrene Insulation exposed to direct sunlight for more than 90 days. Prolonged exposure to ultraviolet radiation may cause the surface of Styrofoam Brand Deckmate Plus Insulation to become faded and dusty. The surface degradation will have no measurable effect on the insulating value of the plastic foam unless the deterioration is allowed to continue until actual foam thickness is lost. Since the dust would impair the performance of adhesives and finishes, dusty surfaces should be brushed off before these products are applied. A light-colored, opaque protective covering should be used if excessive solar exposure is expected. When stored outdoors, keep

insulation boards tarped or covered to protect from weather and weighted down to prevent boards from being blown around by the wind. Store above standing water.

Code Approvals

- » Meets IBC/IRC requirements for foam plastic insulation; see ICC-ES ESR-2142
- » Underwriters Laboratories, Inc. (UL) Classified, see Classification Certificate D369
- » CCMC-Evaluation listing 11420-L

Typical Properties and Characteristics

Physical Property	Value
Thermal Resistance per in. (25 mm), ASTM C518, 24°C mean temp., ft ² •h•°F/Btu (m ² •°C/W), R-value (RSI) ¹ , min.	5.0 (0.87)
Compressive Strength ² , ASTM D1621, psi (kPa), min.	25 (172)
Water Absorption, ASTM D2842, % by volume, max.	0.7
Water Vapour Permeance ³ , ASTM E96, perm (ng/Pa•s•m ²), max.	1.5 (90)
Maximum Use Temperature, °F (°C)	165 (74)
Coefficient of Linear Thermal Expansion, in/in•°F (mm/m•°C)	3.5 x 10 ⁻⁵ (6.3 x 10 ⁻⁵)
Flexural Strength, ASTM C203, psi (kPa) min.	43.5 (300)
Dimensional Stability, ASTM D2126 / CAN/ULC S701, % linear change, max.	1.5

¹ R means resistance to heat flow. The higher the R-value or RSI, the greater the insulating power.

² Vertical compressive strength is measured at 10 percent deformation or at yield, whichever occurs first.

³ Based on 1" (25 mm) thickness.