

ECMAFLEX PUF

Spray Applied Polyurethane Foam for High-Performance Thermal Insulation

Description

ECMAFLEX PUF is two-component polyurethane resin (PUR) based foam that is applied with a specially designed spraying machine. It provides high performance thermal insulation for green roofs, walls etc.

Areas of Application

ECMAFLEX PUF is formulated to provide an easy, fast and sure system for roofing and wall systems, tank insulation, cold storages where seamless thermal insulation is required.

Advantages

- Spray applied - Fast installation on large surfaces, easy application on complex details for metals, glass and other impervious surfaces.
- Thermal Insulation-Outstanding thermal insulation with high R value
- Seamless - No joints
- Root resistant
- Very good adhesion to most of the building material like concrete, wood, steel, etc
- High compressive strength
- Good Chemical resistance

Technical Specification

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|--|--------------------------|
| Appearance of cured film | Off White |
| Specific Gravity at 27 °C Pack A | 1.15±0.05 |
| Specific Gravity at 27 °C Pack B | 1.23±0.05 |
| Mixing Ratio, Pack -A:B (by Vol) | 1:1 |
| Core density, ASTM D 1622 | 40-45kg/m ³ |
| Dimension Stability (28 days, 20°C) - ASTM D2126 | <1% change |
| Dimension Stability (28 days, 80°C) - ASTM D2126 | <1% change |
| Water Absorption - ASTM D2842 | <2% by volume |
| Water Vapor transmission, 50 mm, ASTM E 96 (desiccant) | 40ng/Pa-m ² s |
| Thermal resistance (90 days at 60°C, 50mm - ASTM C 518 | 2.3m ² -K/W |
| Compressive Strength, kPa | 175-200 |
| Tensile Strength, kPa | 350-450 |
| Open cell content, % ASTM D6226 | < 8 |
| Fire rating DIN 4102 | Class B2 |

Application Instruction

Surface Preparation

The surfaces to be applied should be dry, cleaned and free from oil and grease. Loose particles should be removed and damaged spots repaired first. Cracks should be filled. The substrate surface temperature should be above 10°C and free from surface moisture (less than 8%) and the relative humidity should not exceed 80%. Higher humidity and surface dampness may cause less closed cell and insufficient bond strength to the substrate.

Priming

For porous surfaces ECMACOAT PRIME PU is recommended to improve the adherence of **ECMAFLEX PUF** spray foam.

Application

ECMAFLEX PUF shall be applied by two - component spray equipment consisting of pre-heating (temp. range 40- 70°C) arrangement for material and delivery hoses. Mixing pressure requirement is 1000-1500 psi. ECMAFLEX PUF can be applied in layers, each of 10 to 50mm thickness. Larger form thicknesses are achieved by applying PUF in several layers. If the area insulated with ECMAFLEX PUF is exposed to atmospheric conditions it is necessary to provide them with UV protective coatings. If the application area is subjected to traffic provide protection with screed, tiles or soil (garden).

Consumption:

Theoretically 2.2-2.4 kg mixed material is required to cover 1m² area with 50mm thick foam with core density of 40-45kg/m³.

Packaging

Pack A- 210 Kg and Pack B- 250 Kg)

Shelf Life

06 Months in original unopened sealed condition.

Storage & Handling

Material should be stored in Cool and Dry shade. Please avoid stacking of containers and handle carefully during transport.

Safety Precautions

Wear all PPE's at the of Application like Safety boot, Safety Goggle, Hand Gloves, Mask and avoided with contact of Skin and Eyes. Any direct skin contamination with the hardeners should be washed off immediately with soap and water.

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