

# TIKIFOAM SPF 40



## Spray Applied Polyurethane Foam

### DESCRIPTION

**TIKIFOAM SPF 40** is two component CFC free, polymeric M.D.I based system to produce rigid polyurethane foam with closed cells >95% by spray process for high performance sustainable thermal insulation in building envelope.

### ADVANTAGES

- Spray applied - rapid installation and quick setting
- Seamless - no thermal bridges - maximum energy saving
- Non-sagging
- VOC free
- Light weight- negligible dead load on structure
- Fully bonded – no water tracking behind foam
- High wind uplift resistance.
- Compressive resistance - withstands overlay load
- Durable and sustainable solution

### USES

- For roof and wall insulation
- As insulating solution to generate cool roof system
- For tank insulation
- For insulation applications in cold storages
- As air barrier systems
- As light weight filler for filling sunk areas.

### APPLICATION INSTRUCTIONS

#### SURFACE PREPARATION

The surfaces must be sound, clean, dry, and free from cracks, honeycombs, undulations, oil, grease, laitance and loose particles.

New concrete should be at least 28 days old with moisture content <4%.

### ENVIRONMENTAL CONSIDERATION

Applicators must recognize and anticipate climatic conditions prior to application to ensure highest quality foam and to maximize yield.

Ambient air and substrate temperatures, moisture, and wind velocity are all critical determinants of foam quality.

The temperature of substrate should be >10°C during spray application. Extreme ambient air and substrate temperature will influence chemical reaction of two components, directly affecting yield, adhesion and resultant physical properties of the foam insulation.

### APPLICATION

**TIKIFOAM SPF 40** has quick reaction and gel time and application shall be done only by using PUR spray equipment.

Use of mobile two component, high-pressure plural spray machine equipped with transverse pump and with arrangement for constant preheating with heated hoses is recommended.

Before initiation of spray application, both components are separately pre-heated in plural spray machine to correct spray temperature of 35°C to 50°C to ensure proper viscosity and reaction between components during spray application.

For optimum spray result, component temperature should be maintained between 35°C to 50°C and spray pressure should be maintained between 80 to 100 bars.

The spray application of **TIKIFOAM SPF 40** can be done in layers, each 10mm to 50mm thick.

## APPLICATION DATA

| Properties   | Values           |
|--|------------------|
| Stirring Time @23°C                                | 4 Seconds        |
| Cream Time @23°C                                   | 2 to 4 Seconds   |
| Gel Time (String Time) @23°C                       | 12 to 14 Seconds |
| Tack Free Time @23°C                               | 15 to 18 Seconds |
| Mixing Ratio, by Weight<br>Component A:Component B | 100 : 109        |

## SPECIAL CARE DURING & POST APPLICATION

- Thickness per pass must be determined as per site condition.
- The applied foam must be covered with suitable top coat within 7 days of application to avoid U.V degradation.
- Thermal conductivity may change if exposed for more than 7 days due to escape of blowing agent.
- Skin of the layers must be protected to avoid opening of cells.

## COVERAGE\*\*

To achieve average 50mm thickness on 1m<sup>2</sup> area, 2.3 Kg. of mixed **TIKIFOAM SPF-40** would be required. Consider 15% to 30% extra consumption for over-spray and air-borne wastage in windy environment.

\*\*Coverage is approximate and it depends upon the site conditions and surface porosity at the time of application.

## SUPPLY

**TIKIFOAM SPF 40** is supplied as two-component system. Part A (Polyol) is packaged in 200 kg Blue-colour drum and Part B (ISO) is packaged in 250 kg Red-colour drum.

## STORAGE

**TIKIFOAM SPF 40** components must be stored between 15°C to 30°C. Store in a dry and cool place under the shed and protect from extremes of temperature, heat, direct sunlight.

## SHELF LIFE

Shelf life is 6 months when stored as above and in original packing. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

## SAFETY PRECAUTIONS

As with all chemical products, care should be taken during use and storage of **TIKIFOAM SPF 40** to avoid contact with eyes, mouth, skin, and foodstuffs until product is fully cured/dried.

## PROPERTIES\*

| Properties  | TIKIFOAM SPF 40           | STANDARD         |
|---|---------------------------|------------------|
| Density   | ≥45 Kg./m <sup>3</sup>    | DIN EN ISO 845   |
| Compressive Strength, Against Rise                | 175 to 210 kPa            | DIN 53423        |
| Compressive Strength, With Rise                   | 220 to 320 kPa            | DIN 53423        |
| Water Absorption                                  | <2.5 %                    | DIN 52428        |
| Water Vapor Diffusion Resistance Factor           | 60                        | DIN 52615        |
| Dimension Stability @70°C, 48h                    | ≤1.5 %                    | -----            |
| Closed Cell Content, by Volume                    | >95 %                     | ISO 4590         |
| Tensile Adhesion (with Concrete Mortar Substrate) | 0.21 mPa                  | -----            |
| Thermal Conductivity (K-Value) @25°C              | ≤0.023 w/m <sup>0</sup> K | DIN 52612        |
| Reaction to Fire                                  | Class B2                  | DIN 4102, Part 1 |
| R-Value of 50mm Thick                             | ≥2 m <sup>2</sup> .K/w    | -----            |
| Flexural Strength                                 | ≥ 250 kPa                 | DIN 53423        |

\*The performance data is typical and based upon controlled laboratory conditions. Actual performance on the job site may vary from these values based on actual site conditions.

### VERSION: R4, 202006

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