Dr. Fixit Blueseal

SPRAY APPLIED POLYURETHANE FOAM SYSTEM

Description

Dr. Fixit Blueseal is a two component CFC & HCFC Free, polymeric MDI based system for producing rigid polyurethane foam by spray application.

Standard Compliance

IS 12432 – Part 3 for Application.

Recommended Applications

- Roof Insulation

Features

- Low thermal conductivity, High Thermal Resistance
- Light Weight
- Jointless Insulation, less heat ingress
- Easy to apply
- CFC & HCFC Free, Green Compliance

Method of Application

1 GENERAL SURFACE PREPARATION

- The substrate must be free from dust, oil, grease and loose particles.
- The substrate must be thoroughly cleaned, preferably with mechanical means to get rid of the dust and loose particles.
- The oil and grease on the substrate must be treated de-greased with suitable solvents.
- Any surface cracks and undulations cracks and crevices must be treated with sand and cement mortar mixed with latex polymers such as Dr. Fixit Pidicrete URP / Dr. Fixit Pidicrete MPB.

2 APPLICATION DETAILS

- Ambient air temperature, wind velocity, substrate temperature & substrate moisture are critical determinants of Foam quality.
- Applicator must recognize and anticipate climatic conditions prior to application to ensure the highest quality of Foam and to maximise yield.
- The substrate moisture content must not be more than 4% while spraying.
- Optimum results are obtained when the spray application is carried out when ambient air temperature and substrate temperature falls between +20°C and +48°C. Higher the better in terms of yield.
- Variation in the ambient air and substrate temperature will influence the chemical reaction. This will directly affect the foam expansion rate amount of rise, yield, adhesion and physical properties.
- Polyurethane Foam is formed when the two components are sprayed (base and activator) to form a monolithic seamless layer of rigid foam.
- The Foam achieved its 90% strength within four hours after spraying.
- As the product adheres to the vertical or horizontal surfaces a monolithic surface is achieved.
- Foam needs to be protected with a waterproofing system and must not be allowed to keep exposed for more than 48 hours.

3 APPLICATION EQUIPMENT

- Transfer pumps are recommended for material transfer from container to proportioner. The plural component proportioner must be able to supply each component within ± 2% of the desired mixing ratio of 1:1 by volume.
- Hose heaters to be set to deliver the material between a temperature range of +40 to +45 degC^{0}to the spray gun.

- Optimum hose pressure and temperature to vary with equipment manufacturer, type, substrate temperature, ambient temperature & specific application.
- Applicator to interpret the machine details, product details & surrounding details to arrive at acceptable gun chamber size, material pressure and proportioner output.
- Selecting the proper chamber size and proportioner's pre-heaters is critical.
- Mechanical purge spray guns (specifically direct impingement type or DI type) are recommended for highest foam quality.

Precautions & Limitations

- Material should be stored in shaded and covered place. Store drums at +20°C to +25°C for a minimum of atleast 48 hours before use.
- Do not recirculate components from proportioner back to the Drums
- Machine must be thoroughly cleaned before usage and mixing of our products with any other suppliers product is not recommended.
- Temperature of material inside the drums must be kept between +20°C to +25°C while in use and needs to be checked with help of a thermometer or an infrared gun.
- Moisture in the form of rain, fog, frost, dew or high humidity (> 85%RH) will react chemically with the mixed components, adversely effecting the foam formation, dimension stability and physical properties of the finished product.
- Wind velocities in the excess of 20kmph may result in excessive loss of exotherm and interfere with the mixing efficiency and affecting the foam surface, curing & physical properties.

Technical Information

PROPERTY	UNIT	VALUE	TEST METHOD
Density	kg/m^3	> 55	ASTM D1622
Compressive Strength	kPa	> 500	ASTM D1621
Tensile Strength	kPa	> 500	ASTM D1623
Thermal Conductivity	W/mK	0.024 - 0.026	ASTM C 518* -2017
Water Absorption		< 1 %	ASTM D2842
Closed Cel Content	%	> 95	IS 11239 Part5, 1985 & ASTM D6226
Water Vapor Transmission	ng/Pa.s.m	< 2	ASTM E96
CFC & HCFC Content		Free	
Dimensional Stability 7 days @ -15°C 7 days @ +70°C	%	 < 1.0 < 1.5	ASTM D2126
Flammability		B2	DIN 4102
Packaging	Drums	Part A: 250 kg, Part B: 210 kg	
Shelf Life	months	9	
Thickness recommended		10 - 15mm	

* initial under standard lab conditions. All the Test values are as per Standard Laboratory Condition

Packaging

Drums: Activator : 250 kg, Base : 210 kg

Shelf Life & Storage

Material to be sprayed within 9 months from the date of manufacturing.

Material should be stored in shaded and covered place.

Protect from moisture and moisture vapor, as it will react with the material to product as skin of surface material.

Health & Safety

MDI is classified as a dangerous substance and requires hazard warning label and must be handled with care.

Safety goggles, impermeable protective gloves and overalls should be worn during handling & application.

Contaminated clothes should be removed immediately to prevent skin contact.

Person handling or spraying this product must go through the related literature &be well aware of the Safety Procedure and experience enough to handle this product.

Other Products Categories available

Dr. Fixit brings you the widest range of Construction Chemicals

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