

FIBGROUT PU 2K

Two Component Rapid Setting Polyurethane Foam

Product # 114.69
Version no: 05.8.21

Technical Data

PRODUCT DESCRIPTION: Fibgrout PU 2K is a hydrophobic grout based on polyurethane. FIBGROUT PU 2K is a two-component, spray-applied polyurethane foam that creates a seamless, monolithic barrier against water vapor and air. It is a CFC free, polymeric isocyanate based system for producing rigid urethane foam with a nominal core density of 40 kg/m³ by spray process.

AREAS OF APPLICATION

- Cold storage
- Large voids
- Roofing systems
- Dry fissure grouting
- Foundation stabilization
- Pipe intrusions, Waste water tanks
- Restoration of existing concrete structures
- As a closed cell foam to prevent water leakages
- Tunnels, Dams, Subway (Metro), Sewers, Manholes, Utility boxes, etc
- Sealing against water ingress, leaking cracks, joints, water in masonry, brickwork etc.
- Thermal insulation of building walls, roofs, tanks, vessels and pipes

ADVANTAGE

- Fast reaction
- Excellent bond to surfaces
- Dose not create new cracks
- Negative side application possible
- Can withstand high hydrostatic pressures
- Deep penetration into very small cracks
- Foam increases in volume to fill cavities and voids
- Good adhesive strength, tolerant of movement
- Inert after curing, constant volume, no shrinkage

APPLICATION

SURFACE PREPARATION

Surfaces to be coated 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 Foam and need to be verified by installing contractor in small test areas before proceeding with full application. The surface should be dry, smooth, and structurally sound. Plywood, OSB, and lumber shall not have greater than 15% moisture content. Generally a primer is not required for these surfaces. 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 for increase adhesion is recommended. CMU, structural and poured-in-place concrete must have a minimum 28-day cure and moisture content below 10%. It is recommended to Abrasive blast all steel surfaces to Sa 2.5 with a good anchor profile. All aluminium and galvanized panels must be primed.

MIXING

FIBGROUT PU 2K mix in the ratio of 1:1 by volume. It should not be diluted under any circumstance. Use appropriate solvent for purge line and flushing of equipment and if spraying stops for a period of time in excess of the pot life of the material. Thoroughly mix part RESIN material with air driven power equipment until a homogeneous mixture and color is obtained.

APPLYING AND LAYING

Mixed material are injected using a two component injection pump, equipped with a suitable static in-line mixer to achieve thorough mixing of the two components during injection.

CLEAN UP

- Clean all tools immediately after use with Fibrex Paint Remover. Do not allow material to harden.
- Service life of a floor will be considerably extended by good housekeeping. Regular cleaning may be carried out using a rotary scrubbing machine with a warm miscible cleaning agent at temperature up to 50° C.

TECHNICAL SPECIFICATIONS

Solids by volume	100%
Volatile organic compounds	0 gm/ lit
Consumption for 40 kg density Foam	2 kg @50mm /m2
Specific Gravity of materials	A: 1.24, B: 1.18 kg/ liter
Viscosity at 25 °C in cps	A-200-250, B-350-550
Compressive strength (ASTM D 1621)	0.17- 0.45 Mpa
Dimensional Stability (28 days@71°C,	< 8%

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TECHNICAL SPECIFICATIONS

Closed cell content (ASTM D1940)	93-98 %
Water absorption (ASTM D 2842)	0.017-0.019
Shear strength (ASTM D C 273)	0.21-0.45 Mpa
Insulation Service temperature	-73 °C to 107 °C
Mix Ratio V/V	1:1
Rise time	6 to 15 seconds
Cream time	4 to 8 seconds
Tack free time (DFT & Temp dependent)	15 to 25 Seconds
Initial cure time	4 hours

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LIMITATIONS

Do not open until ready to use, and store in a sealed container after opening. Adding a nitrogen blanket is strongly recommended for the ISO component when storing after opening. All applications to exterior surfaces should be over coated with a suitable elastomeric top coat.

PACKAGING

Fibgrout PU 2K
A part (PU Resin) - 20 Kg bucket
B part (PU Hardener) - 20 Kg bucket
Or Project Standards

STORAGE

Store the material at temperatures between + 10° C and + 45° C in originally sealed packages, the material can be stored for 12 months. But before opening the drums, be assured that the temperature of the materials has the ambient temperature to avoid condensation. Open containers of material should be used quickly to avoid moisture contamination.

PRECAUTIONS

During mixing and application the following precautions should be observed: ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and busing,

if necessary, a suitable barrier cream. In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water (do not use solvents).Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction. Always wear gloves and eye/face protection as necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

DISPOSAL / SPILLAGE

Spillage of any of the component products should be absorbed onto sand or other inert material and transferred to a suitable disposable vessel. Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations.

NOTE

The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.

HEALTH AND SAFETY

This material is intended to be used by trained professionals with proper equipment's. The following safety measures are recommended:

- Wear protective gloves, clothing, goggles, hearing protection for noise reduction and hard hats for falling debris.
- Do not eat, drink or smoke while in active contact with these materials.
- Avoid skin contact.
- Wash hands thoroughly with soap and cool water.
- Never wash the skin with a solvent.
- Anyone experiencing difficulty breathing when working with these materials or showing an allergic reaction should seek fresh air immediately and consult a physician if symptoms persist.

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