

PyuFitt HF100

One Component, Solvent Free, High Foam Polyurethane Injection System

Product Description

Single component, solvent free, polyurethane injection system ideally suitable for crack injections, water leakages, void filling in and beyond concrete and masonry structures. Reaction with water yields a semi-flexible closed cell polyurethane foam. To be injected with a Single-component pump. Use with 5% to 10% catalyst.

Uses

PyuFitt HF100 is a high-efficient Single-component system for sealing water leakages with high water flows. The product can be used to fill voids in concrete, cavities in rocks and anchoring in gravel.

Properties

Reaction with water yields a semi-flexible polyurethane foam. The formation of CO₂ makes the resin penetrate very well into the cracks. The reaction speed can be adapted easily by varying the accelerator or catalyst content from 5% to 10%. The more catalyst is added, the faster the reaction velocity. The cured product neither shrinks nor swells.

A good compression strength is obtained in a very short time. Foam expansion: 3000 to 4000%.

Note: Foam expansion depends on water force reaction with catalyst.
Higher water force higher the foam expansion

Technical Properties

Physical characteristics of the Resin

Subject	Value	Norm
Solid Content	100%	Solvent Free
Density	1.15 g/cm ³	EN ISO 2811-2:2002
Viscosity	96 mPa.s	EN ISO 3219:1994
Flash point	> 180 °C	
Colour	Yellowish Brown	

Physical characteristics of the Catalyst

Subject	Value	Norm
Solid Content	100%	Solvent Free
Density	0.94±0.03 g/cm ³	EN ISO 2811-2:2002
Viscosity	21 mPa.s	EN ISO 3219:1994
Flash point	> 180 °C	
Colour	Clear Liquid	

Characteristics of the mixed material

Subject	Value	Norm
Mixed Density	1.160 ±0.01 g/cm ³	EN ISO 1183:2019
Flexural strength	12.5 N/mm ²	BS EN 196-1:2016
Closed cell content	97%	ASTM D2842:2012b
Compressive Strength	30-40 N/mm ²	ASTM C109/C109M: 2016a
Cream Time	0-10 sec.	
Rise Time	30-50 dec.	

Reaction Time

Quantity of catalyst	Initial Reaction	End of Setting	Foaming Factor
5-10 %	3-10 sec.	30-35 sec.	Min. 30 Times Max. 40 Times

Note: All the technical values are in standard laboratory conditions.
Value may vary in site and atmospheric condition.

Application Instructions

Shake the catalyst well. Mix the resin and the accelerator in a ratio of 4% to 5% to arrest normal leakages. Between 6-10% in case of heavy leakages. The reaction time and rise of foam depends up on % of accelerator added. Higher the accelerator reaction time is faster. For injection: use packers and a 1 component pump (manual or automatic). PyuFitt HF100 is very hydrophobic and packed under dry atmosphere. Use opened containers as soon as possible or recap under dry nitrogen.

Pumps should be cleaned with PyuClean, a cleaning product specially developed for cleaning of polyurethane injection pumps.

Package

Resin – 10kg and 20kg metal drum
Catalyst – 1L and 2L bottle

Storage

To avoid problems, it is very important to understand that these materials are both temperature and moisture sensitive. Therefore, materials should be stored in an area with temperatures not exceeding 30°C or not lower than 10°C. The maximum shelf life is 2 years. All partly used drums should be covered by nitrogen and resealed to prevent the ingress of moisture.

Health & Safety

In the event of spillage and accidents, please refer to product Material Safety Data Sheet or contact us for further Clarifications.

Important: PyuFitt India Pvt. Ltd., products are guaranteed against defective materials and are sold subject to its standard terms and conditions of sale. It is the Customer's responsibility to satisfy themselves by checking with the Company whether the information is still current at the time of use. The customer must be satisfied that the product is suitable for the use intended. All products comply with the properties shown on current Technical Literatures. However, **PyuFitt India** does not warranty or guarantee the installation of the products as it does not have any control over installation or end use of the product. All information and particularly the recommendation relating to application and end use are given in good faith.

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