TECHNICALL

DATA SHEET

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MULTI CONSTRUCTION CHEMICALS

http://www.mcc-sa.co.za

MULTI P U VOID FILLER

Description

PU Void Filler is a liquid MDI pre-polymer that once mixed with its activator, reacts upon contact with water to produce a semi-rigid foam. It is for this reason that its main application is in controlling water ingress in mining and civil engineering industries. The rate of reaction of the product can be controlled by the amount of catalyst added to the resin. For general use a 5% m/m addition of the catalyst to the resin is sufficient and gives a string time of about 1,5 to 2 minutes, however for a faster or slower reaction time may be required and thus more or less catalyst may be added to suit the requirement. Only mix the amount of catalyst and resin that you plan to use within the next few hours, as the product will ultimately solidify upon standing once the catalyst has been mixed into it.

Uses

PU Void Filler is used to seal and fill cracks in concrete and stone structures. It is used in conjunction with quick set packers, a pumping mechanism and if needed and epoxy sealing putty. The leak/ crack or void needs to be assessed by experienced operators who will then calculate where, and how many quick set packers need to be placed. They will also determine whether the crack needs to be pre-sealed with epoxy putty and how much catalyst needs to be premixed into the prepolymer.

Processing

The required amounts of prepolymer and catalyst are measured off into a clean container and then thoroughly mixed. The mixed liquid is then loaded into the pump hopper or grease gun and pumped into the packers; generally starting at the lowest one and pumping to maximum determined pressure before moving to the next packer.

If the structure/crack is dry it would be necessary to pre-wet the cracks/voids to be foamed prior to pumping in the PU Void Filler mix as the product only foams upon contact with water. All equipment must be kept dry to prevent the product from reacting with water and foaming prior to application.

The open air volume expansion of the PU Void Filler upon mixing with water is approximately 35 times its liquid volume, however is narrow fissures and cracks the expansion is restricted so that the product forms a tight fitting micro cellular solid that effectively blocks the flow of water and consolidates the structure.

Prepolymer specifications

Viscosity cPs	800 -2000
Density 25°C (kg/L)	1.12-1.20
% Non-volatiles	100%

Catalyst

Viscosity cPs	240
Density 25°C (kg/L)	1.00
Flash Point (open cup)	240°C
Non-Volatiles	100%

Reactivity upon contact with water

String time	+/- 90 seconds at 25°C
Tack free time	+/- 5 minutes
Expansion	up to 35 times original volume

MULTI CONSTRUCTION CHEMICALS SOUTH AFRICA (PTY) LTD
Reg. No. 1991/018517/23

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Application

PU Void filler should only be used by professional applicators, skilled in the art.

Storage and handling

Sealed unused containers should be stored in a cool dry environment below 25°C. Empty containers should not be resealed, and should be rendered unusable by knocking holes in the base and sides of the container to ensure that it unusable. The product reacts with water and liberates carbon dioxide gas which can lead to a dangerous build-up of pressure in closed containers.

PU Void Filler has a 6 month shelf life in unopened containers stored in dry cool conditions (20-25°C).

Health Hazards

PU Void Filler should be treated as an isocyanate and the usual precautions should be exercised when dealing with this type of chemical. Protective clothing and air masks should be worn when working with this product; and the area should be well ventilated as breathing in the vapors can lead to sensitization. Clean all equipment after use with a solvent (such as xylene) as the cured product is difficult to remove. Flush all pumps out with a plasticizer (Mesamoll or di iso octyl phthate) to prevent the resin from gelling in the pump.

The information in this datasheet is to the best of our knowledge true and accurate, the data being obtained from the MSDS of the raw materials used for manufacture.

Quality Assurance

Multi Construction Chemicals South Africa (PTY) Ltd production and testing programs comply with all local and international testing standards.

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