TECHNICAL DATA SHEET

HYDROPLUG

Penetration Sealing System



PREMCRETE

HYDROPLUG







WATER RESISTANT

25 YEARS

PRODUCT WARRANTY

DESCRIPTION

HYDROPLUG is a unique tri-component system which consists of a polyester fibre reinforced polyurethane foam component, a hybrid putty component and a waterproof mortar component. The three components work together to provide an effective integral seal around surface penetrations, through concrete structures.

USES

HYDROPLUG is used to prevent water ingress through service penetrations, ducts, conduits and cable transits. It is easily installed to provide an effective seal for the lifetime of the structure.

ADVANTAGES

- Non-flammable and solvent free.
- User friendly.
- Impermeable to ground water and gases.
- Tri-component system for greater integrity.

HYDROPLUG

TECHNICAL & PERFORMANCE PROPERTIES

Property	Test Method	Value
HYDROPLUG FILLER COMPONENT		
Swell Index	N/A	Up to 5 times of the original volume
Appearance	N/A	White fibres / Brown Polyurethane Resin
HYDROPLUG PUTTY		
Water Resistance	N/A	0.3 Bar
Appearance	N/A	Green Paste
Application Thickness	N/A	100mm
Application Temperature	N/A	+20^{0}C to +25^{0}C
Service Temperature	N/A	-20^{0}C to + 35^{0}C
Density		1.2 g/ cm^3
Water absorption	N/A	0.07%
HYDROPLUG MORTAR		
Mixed Density	N/A	1725 kg/ M^3
Application thickness	N/A	50mm
Application Temperature	N/A	50C to 40^{0}C
Working Life	N/A	60 mins @ 20^{o}C
Compressive Strength	N/A	21 MPa @ 1 day 47 MPa @ 28 days
Water Permeability Coefficient	N/A	5.98 x 10-15m/sec
Oxygen Diffusion Coefficient	N/A	2.65 x 10-4 cm^2/sec

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INSTALLATION PROCEDURE

Application Stage 1

Prepare the void or cavity to be filled by removing all dust and loose particles with compressed air or water. If possible, insert a stopper at the rear of the void to be filled to contain the expansion of the HYDROPLUG filler component and densify the polyurethane foam. It is extremely important that if there are multiple cables passing through a single duct then the cable shouldbe evenly spaced with a minimum of 20mm gap between cables to ensure the effective sealing around each cable. Firstly, remove the metal can from the kit which is labelled RESIN and pour the contents of the small plastic ACCELERATOR bottle into the can and shake thoroughly. Once the RESIN is mixed then it should be poured into the plastic bag which contains the POLYESTER FIBRES and soak thoroughly by kneading the fibres until a homogenous consistency is achieved. Once the fibres are thoroughly wetted out then the fibre wad should be immersed into a bucket of water to activate the RESIN. The fibre wad should then be removed from the bucket of water and pushed firmly into the rear of the void. The fibre wad should fill in between each cable, pressure should be exerted against the fibre wad until it has cured to ensure a dense closed cell foam is achieved.

Application Stage 2

The hardened HYDROPLUG filler component should be trimmed to 150mm from the face of the concrete. The HYDROPLUG putty component should then ideally be preheated in hot water whilst still in the plastic packaging to make the putty more workable. The putty should then be placed by hand ensuring it is well compacted between each cable. The HYDROPLUG putty should be built up to 50mm from the face of the concrete.

Application Stage 3

The HYDROPLUG mortar component should be mixed with 700ml of clean water to produce a pliable mortar. The mortar should then be placed to fill the remaining 50mm of the void, once again ensuring thorough compaction between each cable. It should then be finished using a trowel or putty knife to achieve a good finish.

PACKAGING & COVERAGE

Pack size

3x HYDROPLUG filler component @ 30g
3x HYDROPLUG resin component @ 450g
3x HYDROPLUG accelerator @ 23g
3x HYDROPLUG putty component @ 2kg
1x HYDROPLUG mortar @ 5kg (yield is 3.3ltrs)

Coverage

Total surface area (m^2) x 50mm = total ltrs of mortar required.
Total ltrs of mortar required / 3.3 = total number of kits required.

STORAGE & SHELF LIFE

HYDROPLUG should be stored in dry conditions at temperatures above 6°C. When stored in original packaging the product will have a shelf life in excess of 1 year.

HEALTH & SAFETY

See separate Material Safety Data Sheet.

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