

# PENETRATION SEALING SYSTEM

# 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 FILLER COMPONENT

Property	Value
Swell Index	Up to 5 times of the original volume
Appearance	White fibres
	Brown Polyurethane
	Resin

### **HYDROPLUG PUTTY**

Property	Value
Water Resistance	0.3 Bar
Appearance	Green Paste
Application Thickness	100mm
Application	+20°C to +25°C
Temperature	
Service Temperature	-20°C to + 35°C
Density	1.2 g/ cm <sup>3</sup>
Water absorption	5%

# **HYDROPLUG MORTAR**

Property	Value
Mixed Density	1725 kg/ M3
Application thickness	5mm to 80mm
Application	5°C to 40°C
Temperature	
Working Life	60 mins @ 20°C
Compressive Strength	21 MPa @ 1 day
	47 MPa @ 28 days
Water Permeability	5.98 x 10 <sup>-15</sup> m/sec
Coefficient	
Oxygen Diffusion	2.65 x 10 <sup>-4</sup> cm <sup>2</sup> /sec
Coefficient	

Structural Waterproofing | Gas Protection | Concrete Repair
Technical Grouts | Joint Sealants | Protective Coatings | Admixtures

# **HYDROPLUG**

### PENETRATION SEALING SYSTEM

### **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 should be 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:

- 3 HYDROPLUG FILLER COMPONENT @ 30g,
- 3 HYDROPLUG RESIN COMPONENT @ 450g
- 3 HYDROPLUG ACCELERATOR 23g
- 3 HYDROPLUG PUTTY COMPONENT @ 2kg
- 1 HYDROPLUG MORTAR @ 5kg

**Coverage:** 1 pack will be sufficient to seal approximately 3 x100mm diameter penetrations through a 300mm thick wall.

# **STORAGE & SHELF LIFE**

HYDROPLUG should be stored in dry conditions at temperatures above 60C. When stored in original packaging the product will have a shelf life in excess of 1 year.

### **HEALTH & SAFETY**

See separate material safety datasheet.

