

# HYDROPLUG

## Rapid Setting Cementitious Water Plugging Mortar

### Description:

HYDROPLUG is a rapid setting water plug cementitious expanding mortar. It is formulated primarily as a rapid plugging of active water leakage in concrete or rock structures such as tanks, chambers, manholes, pipes, basement walls, tunnel linings. It is suitable for rapid plugging of studs, anchorages, etc. where light loads are anticipated.

HYDROPLUG is supplied as a dry powder. It is composed of blend of cement, special fillings and chemical additives. Once mixed with water, the product starts to harden in few seconds.

### Applications:

- Water retaining structures.
- Basements where walls are leaking.
- Lift pits & inspections chamber.
- Tunnels and underground structures.
- Water reservoirs and water retaining bodies.

### Advantages:

- Easy to use mix only with clean water.
- Rapid water stopping capability.
- Chloride free.
- Non-toxic can be applied in portable water tanks.
- Excellent bond to concrete.
- Rapid plugging, provides enhanced time for further injection or repair works.

### Instructions for Use:

#### Surface Preparation:

The area of application must be cleaned from loose concrete and contamination, prepare the work area by mechanical means (chisel, hammer, etc.) to ensure good adhesion, it is advised to expose the aggregates within the concrete structure to ensure proper bonding.

Holes, cracks and fissures should be chiseled wide enough to allow better anchorage of the product.

To treat the leaking area, chisel out the leaking spot for a depth of 2 cm, then remove all loose material.

#### Mixing:

HYDROPLUG is a single component powder. Mix with clean water by adding powder to water in the pot in controlled quantities as it is fast drying. Mix the product in a small container manually by a clean spatula or mixing ruler to obtain a homogeneous mix.

Mix small quantity that can be applied immediately. Do not add extra water if the mix starts to harden. Time of setting depends on weather and water temperature.

#### Application:

Allow the material to start reaction few seconds after mixing. HYDROPLUG has an exothermic reaction mode. This will cause the mixture to heat upon initiation of reaction.

Start application of material mix. Apply with pressure the paste to the crack using hand or a metal spatula. Force the mixture into the crack and apply pressure to the paste till initial setting start. Keep holding down the spatula or hand with pressure for 60 seconds.

If the crack is presenting running water, it is advisable to drill a relief opening. This will reduce the water pressure from the crack to allow for the application of the plugging mixture.

If the relief hole is not achievable, mix a dense paste of HYDROPLUG and apply it by hand with pressure to the water leaking crack as a stopper. Hold tight till it sets and monitor the water flow. The water should stop temporarily. Then mix a proper amount of HYDROPLUG paste and apply it directly to the crack to strengthen the water plugging function. Hold it down for 60 seconds to ensure that all the crack is filled and well plugged.

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Application time differs according to water leakage volume and temperature. The material may require longer time than 60 seconds to finally set and achieve its purpose.

## TECHNICAL PROPERTIES

|                        |  |
|------------------------|--|
| Appearance             | : Cement powder  |
| Density                | : 1.4 kg/m <sup>3</sup>  |
| Comprehensive strength | : After 2 hrs: 6 N/mm <sup>2</sup><br>After 14 days: 30 N/mm <sup>2</sup>    |
| Flexural strength      | : After 2 hrs: 1.6 N/mm <sup>2</sup><br>After 21 days: 8.5 N/mm <sup>2</sup> |
| Setting Time           | : 60 sec @ 25°C  |
| Noxiousity             | : None   |

### Packaging:

Available in 5 Kg plastic bags.

### Storage:

Store in original packing in dry conditions away from direct sunlight and high humidity levels.

### Coverage:

HYDROPLUG mixture of 1.4 kg achieves 1 liter of wet mix.

### Shelf Life:

HYDROPLUG can be utilized within 12 months of production date if stored in proper conditions in unopened original packing.

### Cleaning:

Clean all tools with clean water before product hardens.

### Health and Safety:

- Use goggles and gloves during application. Do not breathe the vapor of the product. Use only in well ventilated areas.
- Avoid contact with eyes or skin.
- In case of eyes contact, clean immediately with plenty of clean water and seek medical care.

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This technical data sheet is not considered as local building codes. It shall be used as general reference for the product, based on our current knowledge and experience. However the company do not accept any liability arising from the use of its products as it has no direct control on how and where the product is applied.

