

POLYGROUT HPY FLEX

Polyurethane resin for stopping flow of water

Product Description

POLYGROUT HPY FLEX is two parts liquid polyurethane, which is design when meets water reacts with it, forming a closed cell flexible barrier which will repel water and wilt not allows it to pass through.

Typical Application

To stop water leaks through

- Cracks & honey combed concrete.
- Voids between wall & floor.
- Expansion joints.
- Cold joints.
- Around mechanical fittings

To repair leaking concrete in

- In tunnels & manhole.
- Sewer lines.
- Concrete dams.
- Water concrete structures.

Product Features

- Set Material is non-toxic.
- Could be used in drinking water tanks.
- Extremely Durable yet environmentally friendly.
- Reacts rapidly with water.
- Forms a flexible water stop,
- Used when 20% movement is anticipated.
- Expands with an outward pressure sealing smallest cracks.
- Adheres tenaciously to practically all wet or dry substrates.
- Does not shrink after total drying.
- Permanent seal for cracks.
- Can expand up to 20 times its original body

Properties

Density(core)

Tested in accordance with
ASTM D 1622

Free Rise 2.02 Lb/ft³

Confined 4.04 Lb/ft³

Shrinkage

Tested in accordance with
ASTM D 2126

1 Day < 0%

7 Days < 0 %

Water Absorption (Volume Confined)

Tested in accordance with ASTM D 2127

Less than 1 %

Shear Strength

Tested in accordance with
ASTM C 273 17.10 Psi

Tensile Strength

Tested in accordance with
ASTMD 1623 29.30 Psi

Chemical Resistance

Resistant to most common chemicals, please consult
POLYCOO Technical department for details

Viscosity

@ 500 cps

Elongation

Tested in accordance with
ASTM D 162344%

Percentage Solid

100 %

Color

Amber

Guide for Applications

Repairing leaking cracked concrete

Surface Preparation

Remove all loose particles, dust traces of oil, paints dirt from surface of leaking cracks.

Drilling injecting holes

Locate rebar and conduit in concrete to be repaired Drill a 0.8 - 1.5 cm. hole (depend on crack size) at a 45 deg. angle every 40 cm. Drill at a distance away from the crack to approximately one half the thickness of the concrete. f repairing a vertical surface drill the first hole at the bottom of the rack and work up wards. Drill few centimeters away from the rack to avoid concrete to break when injecting under pressure. F repairing a thin concrete element, holes are drilled in the face of the rack, and face should be well, sealed to retain pressure, as when injecting Epoxy Systems.

Installation of Packers

Install the correct size packer into: the drilled holes.
Make sure that all packer installed around the crack are well tighten, to prevent coming out when under pressure. We recommend the use of a 1.0 - 1.5 cm packers with a male zerk fitting and check value, with approximately 5.0-6.0 cm in length.

Mixing

Estimate the quantity of **POLYGROUT HPY FLEX** you may use for this crack Pour the **POLYGROUT HPY FLEX** base in to a clean open top bucket, mix the correct amount of **POLYGROUT HPY FLEX** catalyst at a ratio of 1.5 % by volume by using a slow speed paddle mixing drill or by hand mixing for small quantities.

Add the catalyst slowly and mix continuously for 3 min., if you add the catalyst quickly, this may cause lumps in the material that may block your pump.

Make sure when mixing not to introduce air in the mix. Any surface get in contact with the activated grout before injection should be completely dry, free from moisture, water acts as a catalyst to trigger the reaction. Now the **POLYGROUT HPY FLEX** is being activated start putting it in the pump to start injection, after flushing the pump with solvent, never flush the pump with water

Testing Reaction Time

Pour a small amount of the activated **POLYGROUT HPY FLEX** in a plastic cup, add some drops of water to it and mix.

Check how long the reaction will occur, for a standard mix 30 sec. to begin, adjust your reaction time by adding more **POLYGROUT HPY FLEX** base or catalyst to your mix. In cracks where water is strongly flowing we recommend adding more catalyst to increase the reaction time of the **POLYGROUT HPY FLEX**

Injection

Cracks with flowing water are not a problem it is preferable.

In a vertical wall start injecting from the lowest point working up words. If crack is dry during injection, water could be injected first through the injection packers. Pump **POLYGROUT HPY FLEX** through the injection packer until the hole will not take any more grout or grout is no longer visibly seeping out of the crack and appears to have stopped traveling

Use a pump, which attains at least 250 p.s.i, or use hand grease injecting pumps for small quantities.

After 3 mm. the grout have being reacted and the seepage of water should be stopped.

To permanently seal the crack you may inject more material, 2 or 3 times in each injection packer with in 60 mm. after initial injection, this will not consume too much grout, always stop when you see the grout coming out of the crack.

Allow **POLYGROUT HPY FLEX** to cure then clean all material protruding out of the crack surface.

Make Good

Patch the crack and the injection holes after cleaning with **POLYPAIR CP** any protruding packers should be cut before patching. Clean the pump thoroughly by flushing it well with solvent, to prevent future blockage in pump.

Yield

It will depend on expansion allowed.

Coverage

It depends on the volume of the crack, as a general estimation

0.5kg -1.00 kg for every 1 meter long of crack.

Packaging

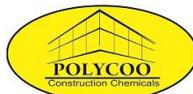
POLYGROUT HPY FLEX (two components) In 210 kg -20 kg - 2 kg packs.

Storage

POLYGROUT HPY FLEX should be stored in non-humid shaded areas.

Shelf Life

Six month when stored as recommended.



Under technical collaboration with

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