

DUROFLEX PLUG

RAPID SETTING CEMENTITIOUS



DESCRIPTION

Duroflex plug is a rapid setting cement based compound that forms a durable plugging mortar designed to stop active water leaks in concrete and masonry structures. Based on a blend of unique cement, special fillers and aggregates, Duroflex plug is able to be used to stop active water leaks or seepage of water under pressure through holes, cracks and joints in solid concrete and masonry surfaces. Once mixed with water and applied to the surface, the fast setting Duroflex plug mortar expands during its curing process to form a watertight seal that provides an immediate stop to running water. When cured, the Duroflex plug provides similar properties to concrete.

FEATURES

- Rapid setting, forming an instant plug against active leaks within 2 -5 minutes
- Requires addition of water only
- Outstanding adhesion to concrete and masonry surfaces
- Excellent workability to mold into holes, voids, crevices, joints or cracks
- Free of chloride admixtures
- Non shrinking when dried
- Expands while setting to form a crack free waterproof seal
- Does not promote corrosion of reinforcement in concrete structures

USE AREAS

Emergency repairs against water leaks Sealing cracks and construction joints in water retaining structures, e.g. tanks, reservoirs Sealing active leaks with a negative head of pressure, e.g. lift shafts, basements, manholes Joint filling and pointing between concrete segments in concrete and bricktunnels, sewage systems, pipes, cellar walls Below ground access chambers, foundations and mines Sealing construction joints, wall/floor junctions in underground applications before tanking.

TECHNICAL INFORMATION

Compressive strength	30 minutes - 13.6 N/mm ²
	2 24 hours - 30.2 N/mm ²
	2 7 days - 43.8 N/mm ²
	2 28 days - 50.8 N/mm ²

Flexural strength	30 minutes - 2.5 N/mm ²
	2 24 hours - 5.8 N/mm ²
	2 7 days - 6.0 N/mm ²
	2 28 days - 6.8 N/mm ²

Tensile strength	28 days - 3.1 N/mm ²
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Above properties based on value at 20°C

PACKAGING

- 4kg and 15kg pails



GENERAL APPLICATION AND MIXING DETAILS

- Surface needs to be in a sound state, removing all loose material around the perimeter edges of the area to be filled. Area needs to be free of oil, grease, and wax residues.
- For best results, areas to be treated should be cut out to a minimum width and depth of 20mm, cutting the sides as square as possible. Avoid forming a "V" section in the surface; best results achieved by forming a dovetailed profile if possible. Surfaces should be roughened for a good mechanical key. Ensure surfaces to be treated are not feather edged or made smooth.
- As the application of the Water Plug is designed to create an immediate seal against leaking water, best preparation will avoid loss of time. Before commencing ensure a clean empty pail is ready for mixing in. Access to clean water is required and this should be approx. 20C. If conditions are cold, it is recommended to use warm water to enable correct strength development of the Water Plug. A clean spatula or trowel to mix product is required along with rubber gloves.
- Mixing should only be done by hand, DO NOT mix with an electric stirrer or paddle.
- Best results achieved by mixing sufficient material that can be placed by hand in one application, approx. 0.5kg.
- Apply Water Plug powder into an empty pail, and then add water. Mix quickly, forming a paste/putty mortar consistency.
- As a mixing guide approx. 150ml of clean water should be mixed to 1kg of powder. This is a guide only, and depending on temperature and other ambient conditions this may vary by using a lesser or greater amount of water to form the correct working consistency.
- Using a gloved hand, hold the mortar material until slight warmth is felt or signs of setting occur.
- Then press the Water Plug mortar into the opening, and apply firm full pressure by hand or trowel.

- The mortar will set within 30 seconds - 1 minute, slowly remove trowel or hand.
- If the opening of the area being treated is large, work from the sides towards the center, following the above instructions until the total area is covered with the Water Plug.
- Once the active leak has stopped, the Water Plug patch can be sanded or grinded back to enable it to be level with the surrounding wall or floor surface area.
- If sealing active leaks between wall/floor sections, cut out the crack/joint at a minimum 20mm wide, cutting back slightly into the wall. In this application, best results are achieved by filling the void prepared and forming a 45 mm fillet or cove with the Water Plug mortar at approx. 40mm wide.

IMPORTANT NOTES

- Setting time is approx. 1-3 minutes depending on temperature conditions.
- Once the Water Plug has stiffened and hardened, dampen with clean water and keep in a damp for approx. 15 minutes, using a water mist or sponge
- Coverage will vary on different surfaces. As a guide, 1kg of powder will fill a joint 20mm x 20mm x 1.45m length.
- Water Plug should not be used when the temperature is below 10C. For conditions that are cool, e.g. <60C max, warm water can be used to mix the Water Plug to ensure correct setting time. For extremely warm conditions, cold water can be used to mix the Water Plug mortar.

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