

Enviro Plug

Rapid Setting Cementitious Plugging Compound



DESCRIPTION

Enviro Plug is a rapid setting cementitious compound that forms a durable plugging mortar, designed to stop active water leaks in concrete and masonry structures. Once mixed with water and applied, the fast setting Enviro Plug mortar expands during its curing process to form a watertight seal that provides an immediate stop to running water.

FEATURES

- Rapid Setting
- Requires the addition of water only
- Free of chloride admixtures
- Corrosion inhibitor
- Excellent workability
- Expands while setting to form a crack free seal
- Non-shrink

TYPICAL USES

Enviro Plug is suitable for commercial, residential and industrial applications, in the following areas:

- Tanks
- Lift pits
- Manholes
- Sewage systems
- Foundations
- Suspended slabs
- Reservoirs
- Basements
- Tunnels
- Pipes
- Wall/Floor junctions
- Rapid anchoring of bolts, fixtures, etc.

PHYSICAL PROPERTIES

Setting Time	1-3 mins (temperature dependant)
Tensile Strength (28 days)	3.1 MPa
Comprehensive Strength (30 mins)	14 MPa
Comprehensive Strength (24 hrs)	30 MPa
Comprehensive Strength (7 days)	44 MPa
Comprehensive Strength (28 days)	51 MPa
Flexural Strength (30 mins)	2.5 MPa
Flexural Strength (24 hrs)	6 MPa
Flexural Strength (7 days)	6 MPa
Flexural Strength (28 days)	7 MPa

SUBSTRATE PREPARATION

Surfaces must be clean and free from contamination such as dust, laitance, grease, coatings and curing compounds. Remove all sharp edges including screws, nails and concrete/mortar projections. 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 are achieved by forming a dovetailed profile if possible. Surfaces should be profiled for a good mechanical key.



NOTE: Do not apply Enviro Plug to any concrete that has received concrete curing compounds. For further information on substrate preparation or for project specific advice, please consult Envirosystems. customerservice@envirosystems.com.au



MIXING

The application of Enviro Plug is designed to create an immediate seal against leaking water; ensuring best practice preparation protocol will avoid loss of time when it comes to applying Enviro Plug. Before commencing ensure a clean empty pail is available for mixing powder with water and access to clean water is at hand.

Water temperatures can vary curing of Enviro Plug. Colder water temperatures will slow down the curing process while warmer water will increase curing times. The applicator should assess the water temperature prior to mixing.

For example, if conditions are cold and water temperature is also cold, it is recommended to use warmer water to ensure correct strength development of the Enviro Plug. A clean spatula or trowel to mix product is required along with rubber gloves.

Mixing of Enviro Plug should only be done by hand and not with a mechanical stirrer or paddle. Add Enviro Plug powder into an empty pail, and then add water. Mix quickly, forming a paste/putty mortar consistency.

As a mixing ratio guide, approximately 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.

APPLICATION - PLUGGING

Once Enviro Plug is mixed and using a gloved hand, hold the mix until a slight warmth is felt or signs of setting occur. Then press the Enviro 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 centre, following the above instructions until the total area is covered with the Enviro Plug mix.

Once the active leak has stopped, the Enviro Plug patch can be sanded to match the profile or contour of 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 saw cut and forming a 45° fillet or cove with the Enviro Plug mortar at approximately 40mm wide.

APPLICATION - ANCHORING BOLTS

Drill a hole into the surface deep enough to hold the bolt securely and ensure the hole allows approximately 10mm around the circumference edges of the bolt.

Mix Enviro Plug as per details above and pack the hole with the mixed Enviro Plug mortar, trowelling into the hole to ensure it is completely full of mortar product. Immediately centre the bolt over the hole and push into the Enviro Plug mortar, forcing it into position.

Pack Enviro Plug mortar firmly around the bolt/fixture, and keep the mortar moist using a water mist or damp sponge. Continue this for approximately 15-20 minutes while the Enviro Plug sets to cure.

For further information regarding application of Enviro Plug or for project specific advice please consult EnviroSystems.

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APPLICATION RATES

Best results are achieved by mixing and applying a sufficient amount that can be placed by hand in one application. This typically resembles the size of a tennis ball and weighing around 500gm (0.5kg).

CURING

Enviro Plug will set in approximately 1 – 3 minutes depending on temperature conditions. Once Enviro Plug has hardened, dampen with clean water and keep in a damp state (with water mist or sponge) for a minimum of 15 minutes.

Enviro Plug should not be used when the temperature is below 1°C. For conditions that are cool, e.g. <10°C, warm water can be used to mix the Enviro Plug to ensure correct setting time. For extremely warm conditions, cold water can be used to mix the Enviro Plug mortar.

OVER COATING

Over coating of Enviro Plug is possible once the applicator has determined if leaking has ceased.

Enviro Plug can be over coated with the EnviroSystems range of primers by following instructions on the prospective Product Data Sheets.

PACKAGING

Enviro Plug is supplied in 10kg plastic pails.

CLEANING

For easy removal of Enviro Plug from tools and surfaces immediately clean with water before it has cured. Once cured, attempt physical removal by mechanical grinding.

SHELF LIFE

Enviro Plug can be stored in its original sealed packaging for 12 months from the date of production when stored in a dry cool place. If unsure please contact EnviroSystems for advice.



HEALTH & SAFETY ADVICE

Enviro Plug is hazardous according to Safe Work Australia criteria. Always provide good ventilation when mixing and applying. Wash off splashes of material with clean water and wear gloves and eye protection. If in eyes flush out for 15 minutes and seek immediate medical attention. If irritation is experienced seek medical advice. Refer to the Safety Data Sheet for full safety and handling procedures. Refer to the Safety Data Sheet for full safety and handling procedures.

NOTE: Safety Data Sheets are available upon request by emailing customerservice@envirosystems.com.au

We're here to help you!

It is a good idea to keep a journal of your waterproofing job, whether big or small.

- Take pictures at all stages of your work, including preparation
- Record the quantity and description of products used with corresponding batch numbers
- Record dates and times of when you applied products, from start to finish

Please do not hesitate to contact us for any questions you may have.

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