Estop Water Plug

Fast Setting, Hydraulic Cementitious Mortar

Description

Estop Water Plug is a fast set chloride free hydraulic cement mortar. It is in pre-packed powder form and when mixed with water, it becomes a powerful, fast setting permanent Water Plug.

Estop Water Plug is ideal to stop water leakage through concrete and masonry instantly with excellent structural strength and water tightness.

Estop Water Plug has been tested by SIRIM BHD, in accordance to BS 6319 Part 2:1983, on Compressive Strength Test and complied with the specification in this data sheet.

Uses

Estop Water Plug is use to stop pressure leaks and seepage through rock and concrete, as well as through joints between concrete and steel. It is widely being recommended for:

- Stopping leaks in subways, culverts, tunnels, dams, basements, water tank and swimming pools, etc
- Repairing honeycombs, cracks and spalls
- Filling holes left by tie wires
- Making rigid joints watertight
- Repairing water retaining structures

Advantages

- Easy to use & mix.
- No special equipment required.
- Very fast setting with rapid strength development
- Permanent solution
- Good adhesion to all substrates.
- Remarkable water-stopping power and hydraulic resistance
- No cracking
- Non corrosive
- Non shrink and expands as it sets
- Non toxic when it set

Standards Compliance

- ASTM C942
- ASTM C940

Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Of Hardening at 25 °C</td>
<td>&lt; 180 seconds</td>
</tr>
<tr>
<td>Water Powder Ratio</td>
<td>0.31</td>
</tr>
<tr>
<td>Fresh Weight Density (kg/litre)</td>
<td>2.8</td>
</tr>
<tr>
<td>Colour</td>
<td>Grey</td>
</tr>
<tr>
<td>Appearance after repair</td>
<td>Coarse</td>
</tr>
<tr>
<td>pH</td>
<td>&gt; 7</td>
</tr>
<tr>
<td>At Water Powder Ratio of 0.31</td>
<td></td>
</tr>
<tr>
<td>Compressive Strength (N/mm²)</td>
<td></td>
</tr>
<tr>
<td>30 mins</td>
<td>&gt; 10</td>
</tr>
<tr>
<td>1 day</td>
<td>&gt; 13</td>
</tr>
<tr>
<td>3 days</td>
<td>&gt; 23</td>
</tr>
<tr>
<td>28 days</td>
<td>&gt; 35</td>
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</tbody>
</table>

Application Instructions

Preparation

Areas to be patched should be cut in “U” shape at the leaking point to a depth of 25mm and to give a good mechanical key. Feather edges must not be allowed.

Surface should be brushed clean to remove loose material, dust and laitance. Grease lime or mould growth should be removed by steam cleaning or high pressure water jetting.

Mixing

Clean water should be added to Estop Water Plug in proportions of 1 part clean water : 3 parts Estop Water Plug (measure by Volume), or 1 litre water : 3.2 kg of Estop Water Plug.

Mix to a stiff consistency in a suitable mixing drum or bucket, using a trowel. Due to the rapid set characteristics of the product, only prepare a quantity of mortar, which can be placed within the prescribed set time.

Application

The surface of application should be wetted and ensure maximum contact with the substrate before the material sets. Estop Water Plug should be used and held in place until the initial set is reached.

Minimum thickness of Estop Water Plug is at 15mm.

For application above 50mm deep, Estop Water Plug can be applied in 50mm layers provided being pre-wetted before applying following layers.
Cleaning

Estop Water Plug<sub>compound</sub> should be removed from tools, equipment and mixers with clean water prior to the initial set. Cured material can only be removed mechanically.

Packing & Size

<table>
<thead>
<tr>
<th>Estop Water Plug&lt;sub&gt;compound&lt;/sub&gt;</th>
<th>5 kg tin</th>
</tr>
</thead>
</table>

Yield

<table>
<thead>
<tr>
<th>Estop Water Plug&lt;sub&gt;compound&lt;/sub&gt;</th>
<th>5 kg tin is approximately 2.5 litre in volume after mixing</th>
</tr>
</thead>
</table>

Coverage

<table>
<thead>
<tr>
<th>Estop Water Plug&lt;sub&gt;compound&lt;/sub&gt;</th>
<th>0.15m&lt;sup&gt;2&lt;/sup&gt; at 15mm thick</th>
</tr>
</thead>
</table>

Technical Support

Estop offers a comprehensive range of high performance, high quality of repair product for both new and existing concrete surfaces. In addition, the company offers a technical support package to specifies, end-users and contractors, as well as on-site technical assistance.

Storage

Estop Water Plug<sub>compound</sub> should be stored on pallets in dry conditions and temperature below 35˚C. Under these conditions the product will have a shelf life of 12 months.

If stored in extreme heat locations the shelf life may be reduced.

Precaution

Estop Water Plug<sub>compound</sub> contains cement powder which when mixed with water, release alkalis, which can be harmful to the skin. Wear suitable protective gloves, clothing, eyes protection and respiratory protective equipment. If swallowed, seek medical attention immediately.

Do not induce vomiting.

Additional Information

Estop manufactures and offers a wide range of complementary products which includes waterstops, waterproofing products, grouts, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spalled concrete are available.

Important Note

Estop products are guaranteed against defective materials and manufacture and are sold subject to its standard Terms and Conditions of Sale, copies of which may be obtained on request. Whilst Estop endeavours to ensure that any advice, recommendation, specification or information in may give is accurate and correct, it shall not, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation or information given by it.