AQUATEK® Plug, Plug XF

Fast plugging mortars

Product Description

AQUATEK® Plug & Plug XF are cement based, fast & very fast setting plugging mortars for stopping active water infiltrations.

Advantages

- Fast & very fast setting times for instant plugging of leaks and water infiltrations.
- Can be used under water and to stop high pressure water leaks.
- Perfect compatibility with concrete and masonry.

Field of Application

AQUATEK® Plug & Plug XF are suitable for:

- Stopping active water leaks and seepage, even under high pressure, through joints, cracks, honeycombing and holes in all structures made out of concrete, masonry, stone and cement based renders.
- As a preparation before waterproofing injections or before application of waterproofing coatings.
Product Properties

Technical Data/Properties(*)

<table>
<thead>
<tr>
<th>Properties</th>
<th>Unit</th>
<th>AQUATEK® PLUG</th>
<th>Value*</th>
<th>AQUATEK® PLUG XF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain size</td>
<td>[mm]</td>
<td>0-1</td>
<td>0-1</td>
<td></td>
</tr>
<tr>
<td>Consistency</td>
<td>[-]</td>
<td></td>
<td>Putty to be molded in place</td>
<td></td>
</tr>
<tr>
<td>Maximum water quantity</td>
<td>[l / 10kg]</td>
<td>3.6</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>Final setting time</td>
<td>[min]</td>
<td>≈ 3</td>
<td>≈ 0.5</td>
<td></td>
</tr>
<tr>
<td>Application temperature</td>
<td>[°C]</td>
<td>+5 to +35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh mortar density</td>
<td>[kg/dm³]</td>
<td>≈ 2.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compressive strength (**)</td>
<td>[MPa]</td>
<td></td>
<td>≈ 30</td>
<td></td>
</tr>
<tr>
<td>- 28 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shelf life</td>
<td></td>
<td>12 Months</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stored under cover, clear of the ground, protected from all sources of moisture and frost.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packaging</td>
<td></td>
<td>Pails of 10 kg.</td>
<td>33 pails per pallet (330kg)</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td></td>
<td>Grey powder</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*)Typical values in production control. All tests were executed under a conditioned temperature of 21 °C and 65% RH.  
(**) Compressive strengths measurements based on prisms.

Application

1. Preparation of Substrate

- The substrate has to be free from dirt, grease, laitance, loose concrete, loose particles or layers which could adversely affect adhesion.
- Remove all damaged concrete and prepare substrate by sand or grid blasting, high pressure water jetting, or other methods until base concrete is exposed, offering sufficient roughness (bond) and open pores.
- Cracks and holes should be cut out to a minimum width and depth of 10mm.
- The substrate must be thoroughly pre-wetted with clean water until the substrate is saturated.
2. Mixing

- AQUATEK® Plug & Plug XF need to be mixed manually with clean water until a putty consistency is achieved.
- Because of the fast setting, the material is mixed in small quantities, approximately 1kg per batch, and applied immediately. Do not prepare more material than can be used within the open time of the material.

3. Application

- The material must be manually molded into an appropriate container until the material becomes slightly warm.
- Apply the material when it is stiff, but still plastic. Press the material into the cavity and keep in place by exerting pressure until the mortar has become solid.
- Do not release pressure to quickly. The material must have developed sufficient strength to withstand the water pressure.
- The material can be applied in several layers. Especially when applying in large voids, work in several application steps. Use a limited amount of material with each step. In some cases it is required to use drainage pipes to release water pressure during application of the material.

4. Curing

- Curing and setting times will depend on ambient and substrate temperatures.
- Due to rapid hydration, AQUATEK® Plug & Plug XF will develop a high temperature. In order to prevent rapid loss of water, dampen the hardening material with clean water for approximately 15 minutes after application.

5. Cleaning and maintenance

- Mixing and application equipment should be cleaned immediately with clean water. Hardened material needs to be removed mechanically.

6. Special remarks

- Cementitious materials can lead to incompatibilities under certain conditions in combination with nonferrous metals (such as aluminium, copper, zinc).
- Low temperatures delay the setting of the material. High temperatures accelerate the curing and decrease the open time of the material.

Health & Safety

AQUATEK® Plug & Plug XF are products based on cement and can therefore cause burns to skin and eyes, which should be protected during use. Wear gloves and protective eye shields. Wearing a dust mask is advised. Treat splashes to eyes and skin immediately with clean water. Consult a doctor when irritation continues. If accidentally ingested, drink water and consult a doctor. Users must comply with all risk and safety phrases. MSDS’s can be obtained from GCP Applied Technologies or from our website. GISCODE ZP1.
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