MasterFlow® 700

Natural aggregate, general purpose non shrink grout

**DESCRIPTION**

**MasterFlow 700** is a ready to use natural aggregate general purpose grout which undergoes controlled expansion in the plastic state. It is a Class ‘A’ grout as defined in ASTM C1107-97.

**RECOMMENDED USES**

All general purpose grouting operation such as:
- Column bases
- An in-fill grout for cavity block walls
- Between pre-cast panels and other joints where total load-bearing is not required
- Underpinning where a grout similar in appearance to concrete is required

Please consult your local BASF Construction Chemicals representative on other grout applications.

**FEATURES AND BENEFITS**

- **Ready to use** - factory blended grout requires only the addition of mixing water on site
- **Low water / cement ratio** - reduces drying shrinkage which increases durability
- **Damp packable** – no slumping in plastic state slumping
- **Controlled fluid-phase expansion** - complete void filling
- **Economical** - relatively low in-place cost due to its ease of use and flowable properties
- **Chloride free** – adds no Chloride load to structure

**PROPERTIES**

<table>
<thead>
<tr>
<th>Supply form :</th>
<th>Powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour :</td>
<td>Cement grey</td>
</tr>
<tr>
<td>Density (wet) Flowable</td>
<td>2.18 Kg/L</td>
</tr>
<tr>
<td>Trowellable</td>
<td>2.26 Kg/L</td>
</tr>
<tr>
<td>Estimate setting time Initial</td>
<td>5 hours</td>
</tr>
<tr>
<td>Final</td>
<td>6 hours</td>
</tr>
</tbody>
</table>

The strength of the grout is often the determining factor in deciding when loads can be put on structural members or machinery that has been grouted. The strength of the grout is dependent on the amount of mixing water, temperature (ambient and grout), curing and age of the hardened grout.

<table>
<thead>
<tr>
<th>Compressive strength</th>
<th>Flowable</th>
<th>Trowelable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 day</td>
<td>18 MPa</td>
<td>22 MPa</td>
</tr>
<tr>
<td>3 days</td>
<td>30 MPa</td>
<td>39 MPa</td>
</tr>
<tr>
<td>7 days</td>
<td>41 MPa</td>
<td>45 MPa</td>
</tr>
<tr>
<td>28 days</td>
<td>50 MPa</td>
<td>55 MPa</td>
</tr>
</tbody>
</table>

**APPLICATION**

**Preparation**

The foundation should be clean, well roughened and pre-saturated with water. Eliminate external sources of vibration until the grout hardens.

**Mixing**

For large quantities, use a paddle type mortar mixer. For smaller quantities, mix in a 20 – 25 litre pail using a heavy duty electric drill (e.g. Festo) fitted with a helical paddle (jiffy). When using a mortar mixer, add approximately 80% of the water in the mixer. Keeping the mixer running, add **MasterFlow 700** slowly. Mix for at least 3 minutes until a lump-free mix is obtained.

Add the remaining water while continuing to mix until the desired consistency is achieved. When using a helical mixer, add all the required water before adding any dry grout. Mix for 1 – 2 minutes. Do not use grout from damaged bags.

<table>
<thead>
<tr>
<th>Mixing water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flowable</td>
</tr>
<tr>
<td>Plastic</td>
</tr>
</tbody>
</table>

**ESTIMATING DATA**

Actual amount of water will depend on the desired consistency for the job and temperature (both ambient and grout). For any given consistency, more water will be required at high temperatures and less at low temperatures.
MasterFlow® 700

As a guide, the yield from 25 kg of grout mixed at the following amount of water, with different quantities of aggregates (eg. Aggregate density = 2.6 Kg/L) is given below:

<table>
<thead>
<tr>
<th></th>
<th>Nil Aggregate</th>
<th>13 kg Aggregate</th>
<th>25 kg Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flowable: 4.5L of water</td>
<td>13.5 L</td>
<td>18.5 L</td>
<td>23.1 L</td>
</tr>
<tr>
<td>Trowellable: 3.4L of water</td>
<td>12.5 L</td>
<td>17.5 L</td>
<td>22.1 L</td>
</tr>
</tbody>
</table>

Do not use water in an amount or at a temperature that will cause the mixed grout to bleed excessively or segregate.

PACKAGING
MasterFlow 700 is supplied in 25 kg in multi-ply paper sacks

SHELF LIFE
MasterFlow 700 has a shelf life of 12 months. Store out of direct sunlight, clear of the ground on pallets protected from rainfall.

PRECAUTIONS
For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Material Safety Data Sheet (MSDS) from our office or our website.