MICROFINE CEMENT
Fine Cement for Speciality Grouting Applications

Description
MICROFINE CEMENT is a blast furnace slag-based ultrafine cement intended for specialty grouting applications. With a maximum particle size of ten microns and a median particle size of three microns, MICROFINE CEMENT is able to penetrate very small openings such as soil pores and microscopic rock fissures, in order to improve strength and reduce permeability.

Advantages
- Excellent permeation with high in-place strength and durability
- Ability to adjust superplastizer type and dosage to achieve specified results
- Proven, highly predictable design with a long record of successful projects
- Adjustable water/cement ratio allows grout to be formulated to meet specific project requirements
- Brine tolerant and resistant to chemical attacks, including sulphate attack

Where to Use
Application – MICROFINE CEMENT is used for consolidation of poor soils, foundation stabilization, maintenance grouting of dams and tunnels, foundation and consolidation grouting of dams and embankments as well as water cut-off grouting and pre-excavation grouting in tunnel construction.

Substrate – Concrete

How to Use
Preparation – Conduct on-site tests in advance using all of the specific ingredients that are proposed for the grout application. Confirm that appropriate site and laboratory tests have been conducted to show that the result of various mix designs conforms to project specifications.

Application – To obtain a stable, balanced grout, MICROFINE CEMENT should be mixed in a high-shear colloidal mixer using one of the following proportions, depending upon site conditions, listed in the order of mixing:

<table>
<thead>
<tr>
<th>W:C ratio</th>
<th>1:1</th>
<th>1:5:1</th>
<th>2:1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>30 kg</td>
<td>45 kg</td>
<td>60 kg</td>
</tr>
<tr>
<td>Bentonite</td>
<td>0.5 kg</td>
<td>1.0 kg</td>
<td>1.5 kg</td>
</tr>
<tr>
<td>Microfine Cement</td>
<td>30 kg</td>
<td>30 kg</td>
<td>30 kg</td>
</tr>
<tr>
<td>Dispersant</td>
<td>300 mL</td>
<td>300 mL</td>
<td>300 mL</td>
</tr>
</tbody>
</table>

Clean Up – Avoid environmental contamination and dispose according to local regulations.

Technical Data
- Density (20°C): 30 g/cm³
- Colour: Grayish white
- Physical State: Powder
- Shelf Life: 6 months
- Packaging: 20 kg bags
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Caution
Use only with adequate ventilation. Prevent contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapours. Do not ingest. Wear appropriate PPE including impermeable gloves and safety glasses.

First Aid
For eye contact: flush with water; if irritation occurs: seek medical attention. For skin contact: wash with soap and water; if irritation occurs: seek medical attention. For inhalation: move to fresh air; if difficult breathing occurs: seek medical attention. For ingestion: seek medical attention; drink water; do not induce vomiting. Refer to MSDS for more information.

Related Literature
Cement Grouting Products and Services, MSDS

Related Products
Superplasticizer, Bentonite, Silica Fume, Accelerators

Company Overview
Multiurethanes offers technical grouting services for water cut-off, soil stabilization and void filling applications for the same industries that you service; mining, heavy civil, tunneling and utilities. Our services include: engineering, technical support, materials, and equipment.

Technical Service
For additional information, please contact us: 1-800-663-6633 / info@multiurethanes.com