SUPER FLOW-ROCK®

PRODUCT DESCRIPTION

**SUPER FLOW-ROCK** is a rapid setting, non-metallic, hydraulic cement. It is a portland cement based hydraulic cement which includes select grade silica and additives to provide more strength, shrinkage compensation, improved flow and rapid setting. It anchors by controlled expansion locking the material to be anchored in place. **SUPER FLOW-ROCK** contains no ferrous metals and is non-rusting.

PRODUCT APPLICATIONS

**SUPER FLOW-ROCK** is designed to be used as an exterior or interior anchoring cement. It can be used to anchor bolts, stairway railings, pipe railing, reinforcing rods, signs, posts and virtually any anchoring job. **SUPER FLOW-ROCK** may also be used to grout columns, bearing plates, machinery and precast members. It is suitable for use where there is exposure to water and freeze-thaw conditions. **SUPER FLOW-ROCK** meets ASTM C-1107 Grade C.

PACKAGING

**SUPER FLOW-ROCK** is packaged in 45 lb. reusable pails, 36 pails per pallet.

PRODUCT FEATURES

- Exterior or Interior Use
- Rapid Setting
- Non-Shrink
- High Compressive Strength
- High Flexural Strength
- Anchors by Expansion
- High Pullout Strength
- Non-Metallic

PRODUCT TEST RESULTS (Typical)

<table>
<thead>
<tr>
<th>Test Type</th>
<th>1 day</th>
<th>3 days</th>
<th>7 days</th>
<th>28 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive Strength (ASTM C-109, Air Cured)</td>
<td>5465</td>
<td>6950</td>
<td>7900</td>
<td>9650</td>
</tr>
<tr>
<td>Flexural Strength (ASTM C-348, Air Cured)</td>
<td>1460</td>
<td>1780</td>
<td>1460</td>
<td>1780</td>
</tr>
</tbody>
</table>
| Pullout Strength (1” diameter bolt, 2” diameter hole, 8” deep) | 7 days | 28 days | 7 days - over 40,000 lbs.
SURFACE PREPARATION

All surfaces to be grouted or anchored must be clean and structurally sound; free of dust, grease, oils, paint, sealers, debris, loose particles, etc. Concrete surfaces should be kept damp for 1/2 hour prior to use but no standing water should remain.

MIXING INSTRUCTION

SUPER FLOW-ROCK should be mixed with a heavy duty, high-speed drill and basket mixer. Hand mixing is NOT recommended. It may be mixed to a putty or pourable consistency. Always mix in a clean container. Excess water will reduce strength and increase setting time. Never add other materials to SUPER FLOW-ROCK.

Pourable Consistency: Mix 2.46 fl. oz. of water per lb. of SUPER FLOW-ROCK or 3-1/2 qts. per 45 lb. pail.

Putty Consistency: Mix 2.15 fl. oz. of water per lb. of SUPER FLOW-ROCK or 3 qts. per 45 lb. pail.

To mix, place water in clean container and mix with drill while slowly adding material. Mix for 1-2 minutes, allow to stand for about 1 minute, then mix thoroughly. Note that hot weather will accelerate set time and cold weather will slow it. For a quicker set, use hot water and for a slower set, use cold water.

APPLICATION

The hole should be blown out to remove dust and loose particles. Fill the hole with water and scrub with a stiff bottle brush. All excess water should be removed. The hole should be clean and damp. Place anchor bolt with washer in hole and pour in SUPER FLOW-ROCK. The washer should be just smaller than the hole. Move bolt or rod around in the hole several times to insure there are no voids.

For anchoring in vertical walls, use the putty consistency and force SUPER-FLOW ROCK into the hole. Then tamp the bolt or rod into place and finish flush with the wall. If the SUPER FLOW-ROCK becomes too liquid and flows out of the hole, let it stand for a minute and stiffen.

PRECAUTIONS

Do not remix or retemper. Excess water will reduce strength and increase setting time. Always do a trial installation to determine suitability.

HOLE DIAMETER AND DEPTH

<table>
<thead>
<tr>
<th>Bolt Diameter</th>
<th>Hole Diameter</th>
<th>Hole Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4”</td>
<td>1”</td>
<td>3”</td>
</tr>
<tr>
<td>3/8”</td>
<td>1”</td>
<td>4”</td>
</tr>
<tr>
<td>1/2”</td>
<td>1 1/2”</td>
<td>4”</td>
</tr>
<tr>
<td>5/8”</td>
<td>1 3/4”</td>
<td>6”</td>
</tr>
<tr>
<td>3/4”</td>
<td>2”</td>
<td>6”</td>
</tr>
<tr>
<td>1”</td>
<td>2-1/2”</td>
<td>8”</td>
</tr>
<tr>
<td>1-1/2”</td>
<td>3”</td>
<td>12”</td>
</tr>
</tbody>
</table>

YIELD

100 lbs. of SUPER FLOW-ROCK gives .9 cu. ft. of material.