Material Testing Results

Date: July 23, 2004
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Manufacturer: CTS Cement Mfg. Corp.
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Material: UltraFlow 4000/8
Lot #: N/A

Material Application: Non-Shrink Grout - precision

Mfg. Plant: Blue Island, IL
Std. Bag Weight: 55 #

Testing Conditions: Outside Temperature: 72*F
Humidity: %

Equipment Used: Model: CG570
Mixer: Paddle
Pump: 2TJ6 Progressing Cavity
Power: Hydraulic

Std. Mix Ratios: 1 - 55 lb bag to 5.25 qts water
Water Temp: 72*F

Quantity Water: 31 lbs

Mixing Time: 60 Seconds
Batch Temp: 80*F

Specific Gravity: SG = 2.08
Flow Cone 50 Seconds

Pumping Method: Recirculated through hose, recorded pressures at various flow rates.

Flow Rate/Pressure:

<table>
<thead>
<tr>
<th>Hose (1 1/4&quot; x 25')</th>
<th>Flow Rate</th>
<th>Pressure</th>
<th>Hose</th>
<th>Flow Rate</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 GPM</td>
<td>8 PSI</td>
<td></td>
<td>4.3 GPM</td>
<td>14 PSI</td>
<td></td>
</tr>
<tr>
<td>6.9 GPM</td>
<td>23 PSI</td>
<td></td>
<td>8.7 GPM</td>
<td>28 PSI</td>
<td></td>
</tr>
<tr>
<td>10.8 GPM</td>
<td>34 PSI</td>
<td></td>
<td>13.7 GPM</td>
<td>37 PSI</td>
<td></td>
</tr>
<tr>
<td>15.9 GPM</td>
<td>42 PSI</td>
<td></td>
<td>18.3 GPM</td>
<td>46 PSI</td>
<td></td>
</tr>
<tr>
<td>20.4 GPM</td>
<td>48 PSI</td>
<td></td>
<td>22.2 GPM</td>
<td>51 PSI</td>
<td></td>
</tr>
</tbody>
</table>

Observations: Mixed easy, pumped with low pressures, light gray color, smooth material
Max hose length: between 100 - 150 feet

Results: ChemGrout, Inc. rates the pumpability of this product as a "8" out of 10, with 10 being the easiest. ChemGrout, Inc. recommends the CG050 pump or higher.