Micro Matrix®
Cement Retarder

Micro Matrix® Cement Retarder (MMCR) is a liquid retarder designed for use in Micro Matrix cement.

Applications
MMCR can be used at bottomhole circulating temperatures (BHCTs) between 140° and 250°F (60° and 121°C). Normal MMCR concentrations are 0.04 to 0.24 gal of retarder per 50-lb bag of Micro Matrix cement.

Compatibility
MMCR exhibits extreme retardation in conventional cements and should be used in Micro Matrix cement only. Operators should use caution when mixing Micro Matrix cement with conventional cement for the same job.

Benefits
Micro Matrix cement retarder provides the following benefits:
• extended pumping times
• early cement-strength development
• more predictable thickening times
• adaptability for offshore use
• improved slurry displacement rates at steady pressures

Micro Matrix® Cement Retarder—Product Specifications

<table>
<thead>
<tr>
<th>Part No.</th>
<th>100003781</th>
<th>pH</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Clear liquid</td>
<td>Freeze Point</td>
<td>15°F (-9°C)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.15</td>
<td>Packaging</td>
<td>5-gal pail</td>
</tr>
</tbody>
</table>

HALLIBURTON
For more information on the benefits Micro Matrix® Cement Retarder can bring to your cementing operations, contact your local Halliburton representative.