Micro Fly Ash™
Cement Component

Micro Fly Ash™ cement component is a small-particle fly ash developed as a supplement for Micro Matrix cement slurries.

Applications
A 50:50 blend (by weight) of Micro Fly Ash cement component and Micro Matrix cement is the current standard, but this ratio can be adjusted as needed. Slurry densities can range from 11.5 to 13.0 lb/gal. Micro Fly Ash cement component can be used in wells with bottomhole circulating temperatures (BHCTs) up to 350°F (177°C).

Features
For operating temperatures below 110°F (43°C), 50:50 blends of Micro Fly Ash cement component and Micro Matrix cement may exhibit long dynamic thickening times and slow compressive-strength development. However, operators can overcome these limitations by (1) increasing slurry density (without altering penetration properties), (2) reducing the amount of Micro Fly Ash cement component in the slurry, or (3) adding 3% to 5% KCl or NaCl or 1% to 3% CaCl₂ to the slurry.

Benefits
Micro Fly Ash cement component can provide the following benefits:

• A properly mixed slurry containing Micro Fly Ash cement component will show no appreciable viscosifying or gelation and will reduce the required amount of retarder.

• Slurries containing Micro Fly Ash cement component exhibit improved resistance to sulfate attack and better response to conventional lignosulfonate retarders.

• At temperatures below 230°F (110°C), Micro Fly Ash cement component helps control strength retrogression.

• Slurries containing Micro Fly Ash cement component exhibit superior compressive strength and penetration abilities.

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### Micro Fly Ash™ Component—Product Properties

<table>
<thead>
<tr>
<th>Part No.</th>
<th>100003824</th>
<th>Specific Gravity</th>
<th>2.540</th>
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<tbody>
<tr>
<td>Form</td>
<td>Solid, gray or black powder</td>
<td>Packaging</td>
<td>50-lb bag</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>50.00 lb/ft³</td>
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For more information on the benefits Micro Fly Ash™ Cement Component can bring to your cementing operations, contact your local Halliburton representative.