Cementing

**Dual Spacer™ System**

The Dual Spacer™ system’s primary application is as a low-viscosity, weighted spacer (flush) for primary and secondary cementing operations. The Dual Spacer system can also be designed to displace water- and oil-based muds.

**Features**

The Dual Spacer system can be formulated with freshwater, seawater, 3% KCl, and salt concentrations as high as saturation in well temperatures ranging from 60° to 500°F (16° to 260°C). Its rheological properties typically allow it to be pumped in turbulence at reasonable displacement rates. These properties help improve mud displacement while maintaining drilling fluid/cement slurry isolation.

**Applications**

The Dual Spacer system interacts with the following supplementary additives:

*Dual Spacer Mixing Aid additive*. Dual Spacer Mixing Aid additive helps improve surface suspension properties during low shear mixing operations in offshore sludging pits or after batch-mixing operations featuring bulk-blended Dual Spacer system.

*Retarders*. When the Dual Spacer system is pumped at elevated temperatures, a retarder should be added to counteract the dilution effect occurring at the cement-spacer interface. Otherwise, pump time will be significantly reduced.

*Surfactants*. When oil-based muds are displaced, surfactants reduce interfacial viscosity and preferentially water-wet the pipe surface, which promotes better cement bonding.

*Defoamers*. Adding D-Air 3™ defoamer helps combat the foaming tendencies of a surfactant-laden Dual Spacer system. When surfactants are not used, other defoamers, such as NF-3™ or D-Air 2™, can also be applied.

**Benefits**

The Dual Spacer system has the following benefits:

* It helps improve mud displacement while maintaining drilling fluid cement/slurry isolation.
* It can be used over a wide temperature range.

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<thead>
<tr>
<th>Dual Spacer™ System—Product Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part No.</td>
</tr>
<tr>
<td>Form</td>
</tr>
<tr>
<td>Specific Gravity</td>
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HALLIBURTON
For more information on the benefits the Dual Spacer™ System can bring to your cementing operations, contact your local Halliburton representative.