POROSEAL PLUS
Latex-based fluid loss control sealant

APPLICATIONS
- Shale drilling
- Unconventional reservoirs

ADVANTAGES
- Aids sealing formations containing microfractures and low permeability
- Works in tandem with suitably designed bridging package
- Assists HTHP fluid loss control

POROSEAL Plus® latex-based fluid loss control sealant is used to provide a chemical barrier that seals low-permeability, microfractured formations in shale gas plays and unconventional reservoirs. The sealant, in the presence of other bridging agents, can provide excellent bridging characteristics to water-based fluids. It also provides supplemental HTHP fluid loss control.

POROSEAL Plus sealant should be added at 5 to 15 lbm/bbl [14.27 to 42.8 kg/m³]. Pilot testing is strongly recommended to determine any adverse effects on the system properties for all initial applications and large treatments. The performance of POROSEAL Plus sealant improves with salinity and can be used to improve both wellbore stability and fluid-loss performance of highly inhibitive water-based fluids.

This sealant is compatible with conventional water-based muds as well as high-performance fluids, such as the ULTRADRIL® high-performance water-based drilling fluid system, HydraGlyde® high-performance water-based drilling fluid system, and GLYDRIL® advanced polyglycol system.

Limitations
- Use only in water-based muds.
- Limit temperature to 350 degF [177 degC]. Pilot testing is recommended for applications >250 degF [121 degC].

Toxicity and handling
Bioassay information is available upon request. Handle as an industrial chemical, wearing protective equipment and observing the precautions described in the Material Safety Data Sheet.

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Do not breathe vapors or spray mist. Avoid spills and splashing during use.

Packaging and storage

Typical Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical appearance</td>
<td>White liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.0–1.05</td>
</tr>
<tr>
<td>pH</td>
<td>5–8 (neat)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>212 degF [100 degC]</td>
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<tr>
<td>Melting or freezing point</td>
<td>32 degF [0 degC]</td>
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</tbody>
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