**VINSEAL**

*cellulose fiber is a unique lost circulation material and plugging agent that can be used in all mud systems to bridge and seal permeable formations.*

VINSEAL has minimal effects on rheology and electrical stability (ES), making it especially ideal for use in oil- and synthetic-based mud systems. VINSEAL helps reduce fluid loss, enhance filter cake quality, and minimize differential-pressure sticking tendencies, particularly when drilling depleted zones. VINSEAL is available in Fine, Medium, and Coarse grades for optimal performance in bridging and sealing pores and pore throats of permeable formations.

**Typical Physical Properties**

**Physical appearance** ................................................................. Brownish red powder

**Solubility in water** .............................................................................. Insoluble

<table>
<thead>
<tr>
<th>Grade</th>
<th>Median Particle Size $d_{50}$ (μm)**</th>
<th>Recommended Test Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FINE</strong></td>
<td>80 - 100</td>
<td>Laser light scattering</td>
</tr>
<tr>
<td><strong>MEDIUM</strong></td>
<td>250 - 350</td>
<td>Dry sieve analysis</td>
</tr>
<tr>
<td><strong>COARSE</strong></td>
<td>500 - 800</td>
<td>Dry sieve analysis</td>
</tr>
</tbody>
</table>

**Applications**

VINSEAL additive is a superior lost-circulation material and bridging agent. It is highly effective when used for drilling high-permeability/high-porosity zones. The product is available in three different grind sizes: Fine, Medium, and Coarse. Unlike conventional fibrous lost-circulation materials, VINSEAL does not adversely impact the electrical stability of invert emulsion drilling fluids.

VINSEAL additive is designed to bridge and seal permeable formations, reducing the possibility of stuck pipe, controlling lost circulation, and providing filtration control. It is compatible with water-, oil-, and synthetic-based mud systems. The recommended whole mud treatment to control seepage loss in permeable formations ranges from 6 to 57 kg/ m² (2 to 20 lb/bbl). Concentrations in the range of 57 to 100 kg/m² (20 to 35 lb/bbl) are recommended for more severe lost circulation.

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**ADVANTAGES**

- Minimal effects on mud rheology and electrical stability when used at normal dosages
- Effective bridging and sealing agent for a wide range of formations
- Available in Fine, Medium, and Coarse grades for optimal performance
- Easily mixed and dispersed into mud systems
- Can be used in water-, oil-, and synthetic-based mud systems
- One-sack product with no other additive requirements
- Compatible with all mud systems and other lost-circulation materials
- Fine-grade easily passes through most shaker screens

**LIMITATIONS**

- Can be removed from the circulating system by shale shakers and solids-control equipment, especially when using the Medium and Coarse grades with fine-mesh screens (< 100 mesh); requires close monitoring of shale shakers.

**ADvAnTAges**

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Applications (Cont)
On the basis of its special particle size distribution, Vinseal Fine is recommended for most applications. Very-high-permeability formations, such as fractured carbonates and conglomerates, may require the Medium- or Coarse-grade products.

After the initial treatment, periodic treatments should be carried out to maintain the desired concentration. Significant quantities of Vinseal Medium and Vinseal Coarse additive will be removed by fine-mesh shale shaker screens (100 mesh or finer).

Vinseal should be added to the mud system through a mixing hopper in a suction or other pit suitable for proper agitation. It also can be pumped as a pill to prevent or control severe lost circulation.

Like any other product, pilot testing to determine compatibility with mud properties and any resulting impact is recommended before adding high concentrations.

Toxicity and Handling
Bioassay information is available upon request.

Handle as an industrial chemical, wearing protective equipment and observing the precautions as described in the Material Safety Data Sheet (MSDS).

Packaging and Storage
Vinseal is packaged in 22.7 kg (50 lb), multi-wall, paper sacks.

Store in a dry location away from sources of heat or ignition, and minimize dust.