DYNA-SEAL™ OBM Fiber

DYNA-SEAL™ OBM Fiber is a proprietary micro-cellulosic fiber for use in seepage loss control and other lost circulation needs in oil base muds. The product is available in Ultra fine, fine or medium grades. DYNA-SEAL™ OBM Fiber, like our original seepage control material DYNARED™ fiber, has the advantages of sealing off depleted zones without the excessive build up of wall cake and works in both oil based and water based drilling fluids.

Advantages

- May be mixed rapidly through the mud hopper
- Does not require bypassing of most solids control equipment
- Seals off depleted zones without excessive build up of wall cake
- Does not need addition of a wetting agent to go into oil based fluids
- Is not treated with a wetting agent so it may be used in water based fluids
- Unlike competitive materials does not appreciably increase drilling fluid rheology
- Does not readily degrade due to shear
- Resistant to attack by bio-organisms
- Works in drilling fluids of any pH
- Compatible with other common lost circulation materials
- The acid solubility is 45.6% in 15% HCl at 150°F after a 4 hour soak
- Does not appreciably reduce the ES of invert oil muds!
- Thermal stability is 400°F without use of oxygen scavengers
- May be used in water base muds
- Specific gravity of the ultra fine, fine and medium is 1.01

Cost

Highly cost effective treatment for seepage loss as the ultra fine and fine may be used with flowline cleaners equipped with screens up to 230 mesh without shaking out in significant amounts resulting in lower total well costs

Mud Types

All invert emulsion muds including diesel, mineral oil and synthetic oil based fluids. All water base drilling fluids

Mixing Requirements

May be mixed rapidly through the rig hopper

Desired Solids Control Equipment

No special requirements

Handling

For specific instructions refer to MSDS information or as illustrated on product containers

Packaging

25-pound (11.3 kg), multilayered paper sacks (48 bags to a pallet)

<table>
<thead>
<tr>
<th>Application</th>
<th>Material Needed</th>
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<tbody>
<tr>
<td>Seepage control material ultra fine, fine and medium</td>
<td>Mix 2.0 to 10 ppb (6.0 to 30 kg/m³)</td>
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<tr>
<td>Seal off depleted sands ultra fine, fine and medium</td>
<td>Mix 4.0 to 10 ppb (12.0 to 30 kg/m³)</td>
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<tr>
<td>Lost circulation pill</td>
<td>Mix 25.0 to 35.0 ppb (71 to 100 kg/m³)</td>
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<td>Suggested pill size is 25 to 50 bbls</td>
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<tr>
<td>Lost circulation pill medium</td>
<td>Mix 50.0 to 60.0 ppb (143 to 171 kg/m³)</td>
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<td>Suggested pill size is 25 to 50 bbls</td>
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Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user's specific application. Drilling Specialties Company does not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or from any course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Further, information contained herein is given without reference to any intellectual property issues, as well as federal, state or local laws which may be encountered in the use thereof. Such questions should be investigated by the user.