Bentonite (Halliburton Gel)

Viscosifier

Bentonite viscosifier is a colloidal clay mineral composed primarily of smectite. It may also contain accessory minerals, such as quartz, feldspar, and calcite. In fresh water, bentonite swells to approximately 10 times its original volume.

Applications

Bentonite viscosifier is used in most cement slurries for decreasing slurry weight and increasing slurry volume. In bentonite-cement diesel-oil (BCDO) and bentonite diesel-oil (BDO) slurries, bentonite forms a thick, paste-like material that helps prevent lost circulation.

Compatibility

Bentonite is compatible with slurries containing fibrous, granular, and flake-type lost-circulation materials.

Benefits

Bentonite can provide the following benefits:

- It is easily obtained and can be an effective lost-circulation material when mixed with other common oilfield materials.
- The overall cost for treatment can be less than that of other lost-circulation methods.
- This material can be effective in regular and cavernous lost-circulation zones and where drilling with fibrous, granular, or flake materials has been ineffective.

Bentonite Viscosifier—Product Specifications

<table>
<thead>
<tr>
<th>Part No. (50-lb bag)</th>
<th>Specific Gravity</th>
<th>Form</th>
<th>Bulk Density</th>
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</thead>
<tbody>
<tr>
<td>516.00415 (100003682 SAP)</td>
<td>2.350</td>
<td>Gray-white to green solid powder</td>
<td>60 lb/ft³</td>
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