



Drilling Fluids, Inc.

Lost Circulation Material

Description

ULTRA SEAL is a deformable and compressible micro-sized cellulose fiber combined with a blend of organic polymers and lubricity enhancers used as a lost circulation material.

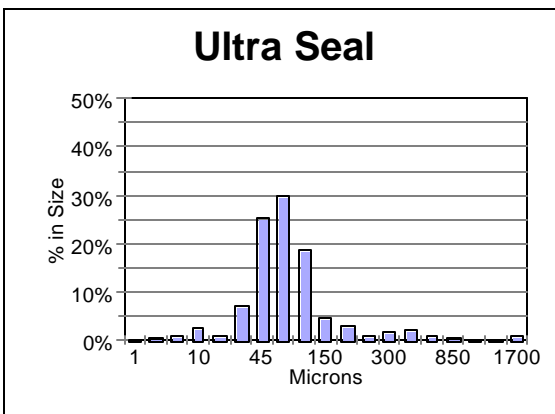
Uses

ULTRA SEAL can be used in both water and oil based muds to seal seepage and lost circulation zones as well as to reduce the coefficient of friction of a drilling fluid.

Benefits

The range of particle sizes in ULTRA SEAL is capable of bridging and matting fractures without extending the wall cake. This minimizes contact with tools and pipe, reducing the chance of reopening closed treated fractures during operations. The small particle size of ULTRA SEAL also helps reduce filtrate loss in non fractured zones. The small size, relative to other lost circulation material, minimizes the loss over shakers.

Particle Size Analysis



Mesh	Micron
400	35.56
75	190.80
60	250.00
50	300.00
40	425.00
30	600.00
20	850.00
14	1400.00
10	1700.00

The data indicates a percent by weight and minimum particle size in microns for each sub-division.



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ULTRA SEAL (Continued)

Treatment

ULTRA SEAL is mixed through the mud hopper. Pills can have concentrations between 15 and 40 ppb of ULTRA SEAL depending on the nature of the loss zone. Seepage may be controlled by maintaining a concentration of 4-8 ppb.

Function

The ULTRA SEAL particles flow into the fractures with the whole mud and form bridges and mating which closes off the fractures and porous regions preventing additional losses of fluid.

Typical Physical Properties

Appearance.....Tan powder
Specific Gravity1.4-1.65
Bulk Density35.5 pcf

Safe Handling Recommendations

Protect from heat, sparks, fire, and oxidizers. Utilize normal precautions for employee protection when handling chemical products. Use of appropriate equipment is recommended for employee comfort and protection. See Material Safety Data Sheet (MSDS) for this product prior to use.

Packaging

ULTRA SEAL is sold in 25 pound multiwalled sacks