WELL-SEAL[™] LCMs



WELL-SEAL[™] LCMs are designed to meet your lost circulation needs no matter the amount of loss. A family of engineered LCMs that are graduated in particle size to fit specific loss circulation problems, WELL-SEAL[™] LCM products take the guess work out of treating the issue. Made from all natural ingredients, WELL-SEAL[™] LCMs offer the best solution to loss circulation in the drilling industry.

Advantages

- Product is all natural and therefore biodegradable
- Specific gravity is between 1.2 1.4
- Works in drilling fluids of any pH
- Acid solubility in 15% HCl at 150°F is 49.22% after a 16 hr. soak
- Product absorbs less water than many other natural LCMs
- Product maybe used in high concentrations with minimal impact on fluid density and is compatible with other common lost circulation materials
- Product is slightly deformable but not too deformable such that it forms a better seal and has a lower fracture conductivity value than other deformable materials
- Product maybe used in high concentrations with minimal impact on fluid density
- Product has minimal effects on rheology compared to other LCMs such as cedar fiber and cotton seed hulls
- May be used in either water based or oil based fluids
- One sack product reduces the need to stock multiple LCMs at the rig site where they may be become damaged
- Reduces warehouse costs

Cost

WELL-SEAL[™] LCM, Fine, Medium and Coarse are cost effective multipurpose LCMs for use in drilling operations

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 through conventional rig hopper or added directly into the mixing pit if sufficient agitation is present

Handling

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

Packaging

35-pound multiwall paper sack

Applications

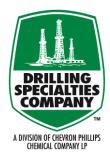
WELL-SEAL[™] LCM Fine is blended for the following applications:

FORMATION	SUGGESTED TREATMENT
Depleted Sand beds	UP TO 10 LB/BBL (28.6 kg/m ³)
Pea Gravel beds	UP TO 10 LB/BBL (28.6 kg/m ³)
Coarse Gravel beds	UP TO 10 LB/BBL (28.6 kg/m ³)
Fractures up to 0.05 inches (1.3 mm)	25 – 40 LB/BBL (71.3 114. kg/ m ³)

$\mathsf{D}_{50}\,\text{is}\,19\,\text{mesh}.\,$ Suggested screen size that may be maintained 8/20 mesh

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 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.

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WELL-SEAL[™] LCM Medium is blended for the following applications:

FRACTURE	TREATMENT LEVEL
To 0.05 inches (1.3 mm)	10 – 25 LB/BBL (28.6 kg/m ³ – 71.3 kg/m ³)
To 0.10 inches (2.5 mm)	25 – 40 LB/BBL (71.3 kg/m ³ 114 kg/ m ³)

 D_{50} is 15 mesh. Suggested screen size that may be used: None; bypass the shale shaker when using this grade material or screen out and replace with fresh material as needed.

WELL-SEAL[™] LCM Coarse is blended for the following applications:

FRACTURE	TREATMENT LEVEL
To 0.10 inches (1.3 mm)	10 – 25 LB/BBL (28.6 kg/m ³ – 71.3 kg/m ³)
To 0.15 inches (3.8mm)	25 – 40 LB/BBL (71.3 kg/m ³ – 114 kg/ m ³)
To 0.20 inches (5.1mm)	25 – 50 LB/BBL (71.3kg/m ^{3 –} 142 kg/ m ³)

 D_{50} is 8 mesh. Suggested screen size that may be used: None; bypass the shale shaker when using this grade material or screen out and replace with fresh material as needed.

For more information please see "THE ENGINEERED LOST CIRCULATION MATERIALS" OF DRILLING SPECIALTIES COMPANY in the Technical Library.

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