TORQUE-SEAL™ LCM/LPM

TORQUE-SEAL™ LCM/LPM is a new proprietary Loss Prevention Material (LPM) for use in casing drilling operations. This specially formulated product has a broad range of particles which cover a wide range of loss zones openings. TORQUE-SEAL™ LCM/LPM contains particles in the right size range to achieve both loss prevention with wellbore strengthening and more traditional loss circulation problems. This makes TORQUE-SEAL™ LCM/LPM multifunctional. TORQUE-SEAL™ LCM/LPM first stabilizes the borehole by plugging minute surface flaws and gravel-size pores. If fractures begin to develop TORQUE-SEAL™ LCM/LPM acts as a fracture propagation inhibitor by screening out at the fracture tip.

Advantages

- Product is all natural and therefore biodegradable
- Product has a high compressive strength of >8000 psi
- Product is a resilient material with an Elastic Modulus of 965 kpsi and a Resiliency of 20.0%
- Works in drilling fluids of any pH
- Acid solubility in 15% HCl at 150°F is 41.8% after a 16 hr. soak
- Product is a low crush material and is less brittle than many other LCM’s such as calcium carbonate
- Product is granular and packs tighter than fibrous shaped LCM such as cedar fiber or mica
- 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 LCM’s such as cedar fiber and cotton seed hulls

Applications:

1. As a LPM for casing drilling
2. As a LCM for casing drilling
3. As a LCM for any loss zone in any drilling application
4. As a torque reducer when used at 2 ppb or more

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

Cost

TORQUE-SEAL™ LCM/LPM is a cost effective LCM/LPM/Torque Reducer for use in casing and horizontal drilling

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

Handling

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

Packaging

50-pound (11.3 kg), multilayered paper sacks (40 bags to a pallet)