

# SURE-SEAL™ LPM (LOSS PREVENTION MATERIAL)



SURE-SEAL™ LPM is a proprietary natural Loss Prevention Material (LPM) for use in wellbore strengthening procedures. SURE-SEAL™ LPM significantly increases near well bore formation fracture resistance by inhibiting the initiation and propagation of fractures before loss circulation begins. LPM's have shown in field applications to increase fracture resistance by 3-6 ppg and more. SURE-SEAL™ LPM is a highly durable additive that has minimal impact on fluid density or rheology even at concentrations of 50 ppb.

## Advantages

- Product is all natural and therefore biodegradable
- Product has a high compressive strength >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 41.76% 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 may be 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

The use of LPM's in a drilling fluid are best addressed in "THE ENGINEERED LOST CIRCULATION MATERIALS" OF DRILLING SPECIALTIES COMPANY

## Cost

SURE-SEAL™ LPM is a cost effective Loss Prevention Material

## 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 (22.6 kg), multilayered paper sacks (40 bags to a pallet)

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.