



TECH DATA SHEET



TEAMWORK ISN'T OPTIONAL. IT'S ESSENTIAL.

SABER SEAL™ (Fine / Medium / Coarse)

Graded Organic Loss Circulation & Torque Reduction Material

PRODUCT DESCRIPTION

SABER SEAL™ is a biodegradable, engineered graded loss circulation and bridging system designed to control seepage losses, stabilize depleted formations, and improve overall drilling efficiency in both water-based and oil-based drilling fluids.

Unlike conventional single-grade LCM products, SABER SEAL™ is manufactured in controlled fine, medium, and coarse particle distributions, allowing for tailored sealing performance across a wide range of formation conditions. The graded structure promotes efficient particle stacking and interlocking, enabling rapid bridging at the fracture face while also building a compressible internal matrix that reinforces long-term seal integrity.

In addition to loss circulation control, SABER SEAL™ contributes to improved drilling performance by reducing torque and drag through the development of a lubricious, low-shear filter cake. This helps enhance directional control, improve rate of penetration stability, and reduce mechanical friction in extended-reach and high-angle wells.

SABER SEAL™ is fully biodegradable and compatible with both water-based and oil-based drilling fluid systems. It disperses easily using conventional rig equipment and requires no specialized mixing procedures.

PERFORMANCE NOTE

SABER SEAL™ demonstrates improved sealing efficiency through optimized particle packing behavior, enabling effective control of both initial invasion and sustained fluid loss in unconsolidated and depleted formations.

PACKAGING

SABER SEAL™ is supplied in 25 lb moisture-resistant bags, packaged 50 bags per pallet for efficient field handling and logistics.

KEY FUNCTIONAL ADVANTAGES

- Controls seepage losses in depleted and highly permeable formations
- Available in fine, medium, and coarse grades for engineered sealing design
- Promotes rapid bridging followed by deep particle packing and consolidation
- Helps reduce torque and drag through improved filter cake quality
- Effective in both water-based and oil-based drilling fluids
- Biodegradable formulation for improved environmental compatibility
- Easily mixed with standard rig-site equipment

TYPICAL PHYSICAL PROPERTIES

PROPERTY	VALUE
Appearance	Granular light to dark tan material
Bulk Density	17.5 – 22.5 lb/ft ³

PARTICLE SIZE DISTRIBUTION (U.S. MESH RETAINED)

MESH SIZE	FINE	MEDIUM	COARSE
4	0.0	0.0	0.0
20	0.0	0.0	33.5
60	1.6	24.0	41.6
80	4.5	53.1	7.6
100	5.1	13.2	2.5
200	54.0	6.6	6.6

TYPICAL TREATMENT RATES

Seepage Losses: 5 – 15 lb/bbl

Moderate to Severe Losses: 20 – 50 lb/bbl

Actual treatment rates should be adjusted based on loss severity, formation characteristics, and drilling fluid system.