

# GrapeSeal™ Lost Circulation Material

High-performance LCM derived from grape seed for bridging and sealing in all drilling fluid systems

## DESCRIPTION

GrapeSeal™ is a lost circulation material (LCM) derived from processed grape seed, engineered for superior bridging and sealing performance in water-based, oil-based, and synthetic-based drilling fluid systems. The product provides reliable bridging and sealing across permeable, fractured, and depleted formations while exhibiting minimal impact on mud rheology and electrical stability.

Available in Fine, Medium, and Coarse grades, GrapeSeal™ offers flexibility to address a wide range of formation permeabilities and loss severities—from seepage losses to severe total losses.

## KEY ADVANTAGES

- ✓ Minimal impact on mud rheology and electrical stability
  - ✓ Effective bridging across wide pore throat range
  - ✓ Compatible with WBM, OBM, and SBM systems
  - ✓ Available in three standard grades (Fine/Medium/Coarse)
- ✓ Easy to mix and disperse—no pre-hydration required
  - ✓ Derived from sustainable agricultural byproducts
  - ✓ Custom granulometries available upon request
  - ✓ Batch-specific certificates of analysis (COA)

## TYPICAL PHYSICAL PROPERTIES

GRADE	PARTICLE SIZE RANGE (MM)	BULK DENSITY (G/CM³)	MOISTURE (% MAX)
Fine *	75–150	0.35–0.45	12
Medium	150–425	0.40–0.50	12
Coarse	425–2000	0.45–0.55	12

\* Target specification. Maximum particle size may vary due to natural variability of the botanical raw material.

GRADE	SIEVE DISTRIBUTION
Fine	Max 5% on 60 mesh (250 µm); 70–100% retained on 200 mesh (75 µm)
Medium	Max 2% on 16 mesh (1180 µm); Max 60% on 50 mesh (300 µm); 30–100% retained on 100 mesh (150 µm)
Coarse	Max 2% on 4 mesh (4750 µm); Max 10% on 8 mesh (2360 µm); 75–100% retained on 100 mesh (150 µm)

Maximum particle size may vary due to natural raw material variability; custom cutoff specifications available upon request.

## RECOMMENDED TREATMENT CONCENTRATIONS

LOSS SEVERITY	CONCENTRATION (LB/BBL)	CONCENTRATION (KG/M³)	RECOMMENDED GRADE(S)
Preventive Treatment	2–10	5.7–28.5	Fine or Medium
Seepage Losses (1–10 bbl/hr)	5–15	14.3–42.8	Fine + Medium blend
Moderate Losses (10–50 bbl/hr)	10–30	28.5–85.6	Medium + Coarse blend
Severe Losses (>50 bbl/hr)	30–50	85.6–142.8	Coarse (primary) + Medium

GrapeSeal™ is a trademark. Information provided is believed to be accurate but is offered without warranty. User is responsible for determining suitability for specific applications.

LOSS SEVERITY	CONCENTRATION (LB/BBL)	CONCENTRATION (KG/M³)	RECOMMENDED GRADE(S)
LCM Pill (Spot Treatment)	40–80	114.2–228.4	Coarse + Medium + Fine

Actual treatment concentrations should be determined based on site-specific conditions and pilot testing.



## APPLICATIONS

GrapeSeal™ enhances wellbore integrity by establishing effective bridging across variable pore throat sizes. The product is engineered to address fluid losses ranging from seepage losses to severe total losses, enabling reliable wellbore sealing in permeable, fractured, and depleted formations.

**Recommended formation types:** Unconsolidated sands and gravels, fractured carbonates, vugular and cavernous limestones, natural fracture networks, conglomerate and breccia zones, depleted reservoir intervals, high-permeability streaks, and rubble zones near faults.

### Grade Selection Guide

**Fine (75–150 µm):** Seepage losses; pore throat bridging in microporosity; preventive treatment in permeable sands.

**Medium (150–425 µm):** Moderate losses (10–50 bbl/hr); standard lost circulation control; medium-permeability formations.

**Coarse (425–2000 µm):** Severe losses (>50 bbl/hr); fractured or vugular formations; total loss zones.

For optimal bridging efficiency, blend multiple grades to match the estimated pore throat or fracture aperture distribution of the target formation.

## PACKAGING & STORAGE

**Standard Packaging:** 50 lbm (22.7 kg) multiwall paper sacks with moisture barrier.

**Bulk Options:** 2,000 lb super sacks and custom palletization available upon request.

**Storage:** Store in cool, dry location. Keep containers sealed. Stack pallets no more than 3 high. Shelf life: 24 months when properly stored.

## HANDLING & SAFETY

GrapeSeal™ is a naturally derived product with low toxicity. Standard industrial hygiene practices apply. Use appropriate PPE including safety glasses and dust mask during handling. Avoid inhalation of product dust.

**Safety Data Sheet (SDS):** Available upon request.

## OEM & PRIVATE-LABEL MANUFACTURING

GrapeSeal™ offers comprehensive OEM and private-label manufacturing solutions for drilling fluid service companies, chemical distributors, and oilfield supply organizations worldwide.

- **Custom Granulometries**

Tailored particle size distributions to meet specific requirements

- **Batch-Specific Documentation**

COA provided for every production batch

- **Private-Label Packaging**

Products shipped in customer-branded packaging

- **Global Distribution Support**

Logistics coordination and export documentation

## QUALITY & COMPLIANCE

Manufacturing and quality control processes are aligned with ISO 9001 principles. Incoming raw material inspection, in-process quality checks, and final product testing ensure consistent product performance from batch to batch. Full batch traceability from raw material intake to final packaging.

**ISO 9001** Aligned Quality System

**COA** Batch-Specific Certificates

**SDS** Available Upon Request

## CONTACT INFORMATION

**Technical Support & Sales:** For product selection assistance, dosage recommendations, OEM inquiries, or to request SDS/COA documentation, please contact us.

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