

VINSEAL

ADVANTAGES

- Minimal effects on mud rheology and electrical stability when used at normal dosages
- Effective bridging and sealing agent for a wide range of formations
- Available in FINE, MEDIUM, and COARSE grades for optimal performance
- Easily mixed and dispersed into mud systems
- Can be used in water-, oil-, and synthetic-based mud systems
- One-sack product with no other additive requirements
- Compatible with all mud systems and other lost-circulation materials
- FINE-grade easily passes through most shaker screens

LIMITATIONS

- Can be removed from the circulating system by shale shakers and solids-control equipment, especially when using the MEDIUM and COARSE grades with fine-mesh screens (< 100 mesh); requires close monitoring of shale shakers.

VINSEAL* cellulose fiber is a unique lost circulation material and plugging agent that can be used in all mud systems to bridge and seal permeable formations.

VINSEAL has minimal effects on rheology and electrical stability (ES), making it especially ideal for use in oil- and synthetic-based mud systems. VINSEAL helps reduce fluid loss, enhance filter cake quality, and minimize differential-pressure sticking tendencies, particularly when drilling depleted zones. VINSEAL is available in FINE, MEDIUM, and COARSE grades for optimal performance in bridging and sealing pores and pore throats of permeable formations.

Typical Physical Properties

Physical appearanceBrownish red powder

Solubility in water Insoluble

Grade	Median Particle Size d_{50} (μm)**	Recommended Test Procedure
FINE	80 - 100	Laser light scattering
MEDIUM	250 - 350	Dry sieve analysis
COARSE	500 - 800	Dry sieve analysis

Applications

VINSEAL additive is a superior lost-circulation material and bridging agent. It is highly effective when used for drilling high-permeability/high-porosity zones. The product is available in three different grind sizes: FINE, MEDIUM, and COARSE. Unlike conventional fibrous lost-circulation materials, VINSEAL does not adversely impact the electrical stability of invert emulsion drilling fluids.

VINSEAL additive is designed to bridge and seal permeable formations, reducing the possibility of stuck pipe, controlling lost circulation, and providing filtration control. It is compatible with water-, oil-, and synthetic-based mud systems. The recommended whole mud treatment to control seepage loss in permeable formations ranges from 6 to 57 kg/m³ (2 to 20 lb/bbl). Concentrations in the range of 57 to 100 kg/m³ (20 to 35 lb/bbl) are recommended for more severe lost circulation.

** Median Particle Size (d_{50}) is reported as a size range due to variations in the manufacturing and grinding process. If a precise size distribution of a product is critical to a drilling operation, it should be measured with the appropriate Recommended Test Procedure using samples that are representative of those expected to be used in that operation. Nominal d_{10} and d_{90} values are available from Houston Technical Services upon request.

Applications (Cont)

On the basis of its special particle size distribution, VINSEAL FINE is recommended for most applications. Very-high-permeability formations, such as fractured carbonates and conglomerates, may require the MEDIUM- or COARSE-grade products.

After the initial treatment, periodic treatments should be carried out to maintain the desired concentration. Significant quantities of VINSEAL MEDIUM and VINSEAL COARSE additive will be removed by fine-mesh shale shaker screens (100 mesh or finer).

VINSEAL should be added to the mud system through a mixing hopper in a suction or other pit suitable for proper agitation. It also can be pumped as a pill to prevent or control severe lost circulation.

Like any other product, pilot testing to determine compatibility with mud properties and any resulting impact is recommended before adding high concentrations.

Toxicity and Handling

Bioassay information is available upon request.

Handle as an industrial chemical, wearing protective equipment and observing the precautions as described in the Material Safety Data Sheet (MSDS)

Packaging and Storage

VINSEAL is packaged in 22.7 kg (50 lb), multi-wall, paper sacks.

Store in a dry location away from sources of heat or ignition, and minimize dust.



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