



SuprSeal[®] Basic

High-Fluid-Loss Lost Circulation Squeeze Material

Description

SuprSeal[®] Basic is a high-fluid-loss lost circulation squeeze material engineered to form a durable, formation-strength plug in severe loss environments. Designed for batch and squeeze treatments, the product intentionally exhibits controlled fluid loss to rapidly dehydrate against the formation face, creating a consolidated mass that seals fractures, vugs, and high-permeability zones. Once placed, SuprSeal Basic develops a stable plug that resists erosion from circulation and drill string movement. The system is compatible with both water-based and oil-based drilling fluids and is well suited for applications where conventional lost circulation materials fail to establish a lasting seal.

Advantage

- The controlled high-fluid-loss profile promotes rapid dehydration against the formation face, forming a consolidated, formation-anchored plug.
- Develops a mechanically stable seal that resists erosion from circulation and drill string movement.
- Effectively seals fractures, vugs, and high-permeability zones where conventional LCM blends fail.
- Designed for straightforward batch and squeeze applications without complex blending requirements.
- Compatible with water-based and oil-based drilling fluid systems while reducing reliance on cement squeeze operations.

Application

- SuprSeal Basic is used for severe lost circulation events where formation squeeze treatments are required to establish a durable plug.
- It is specifically suited for fractured, vugular, and highly permeable formations that demand rapid dehydration and consolidation.
- The material is applied as a batch or squeeze treatment placed directly across the loss interval to create a formation-anchored seal.
- It is effective when conventional particulate LCM sweeps fail to restore circulation.
- SuprSeal Basic serves as a pre-cement stabilization option to regain returns and secure wellbore integrity before proceeding with further operations.

Environmental Advantage

- Reduces drilling fluid losses at the source, minimizing mud waste and material disposal.
- Effective squeeze placement decreases the need for repeated treatment cycles, lowering overall additive consumption.
- Reduces reliance on cement squeezes, minimizing excess cement use and associated emissions.
- Faster restoration of circulation reduces non-productive time and associated fuel consumption.
- Compatible with existing solids control systems, limiting unnecessary mud dumping and system contamination.

Treatment Recommendations

- SuprSeal Basic should be mixed in a clean tank at the rig or liquid mud plant to prevent contamination and ensure proper slurry development.
- A cement pump truck is recommended for controlled, low-rate squeeze placement to maximize plug formation within the loss zone.
- When mixing with oil and weighting with barite, an oil-wetting agent is required to ensure proper dispersion and prevent excessive viscosity development.
- A typical oil-wetting agent concentration of approximately 0.5 ppb is sufficient to achieve stable dispersion under most conditions.
- Strict adherence to recommended mixing, displacement, and squeeze procedures is essential to achieve optimal plug consolidation and sealing performance.

Physical Properties

Appearance: Light brown solid material with mild earthy color

Temperature: Up to 350°F (177°C)

Specific Gravity: 1.12–1.14

Bulk Density: 20.2 lb/ft³

Handling and Storage

SuprSeal Basic should be stored in a dry, well-ventilated area and protected from moisture exposure. Sacks should remain sealed until ready for mixing to preserve material integrity and prevent contamination. Handle using standard bulk material procedures to minimize dust generation and ensure safe transfer operations. Refer to the Safety Data Sheet for detailed safety, handling, and disposal recommendations.

Packaging

- SuprSeal® Basic is packaged in 40 lb sacks, with 40 sacks per pallet (1,600 lb).
- Each pallet of SuprSeal Basic is UV shrink wrapped for added protection during storage and transportation.

