



SuprSeal[®] AS

Acid-Soluble Lost Circulation Material and High Fluid Loss Squeeze for Severe Loss Control

Description

SuprSeal[®] AS is an advanced acid-soluble lost circulation material engineered to control drilling fluid losses in complex formations, particularly carbonate reservoirs and mixed lithology environments. The engineered particle system effectively seals natural fractures, pores, and high-permeability zones while maintaining formation integrity.

The material forms a stable plug across loss zones, helping restore circulation and stabilize the wellbore during drilling operations. SuprSeal[®] AS enables efficient removal during acid stimulation or cleanup operations and minimizes the risk of long-term formation damage.

By controlling losses while preserving reservoir productivity, SuprSeal[®] AS helps reduce non-productive time, improve drilling efficiency, and support optimal well performance.

Advantage

- SuprSeal AS is acid soluble, allowing for efficient post-treatment clean-up and simplified drill-out operations. It is fully compatible with production screens, sleeves, inflow control devices (ICDs) and advanced completion systems, minimizing the risk of plugging or equipment damage.
- The material effectively seals fractures, pores, and thief zones by forming a stable plug while de-fluidizing through porous formations.
- Its engineered formulation performs reliably in unconsolidated sands, carbonates, chalk, and shale formations while minimizing formation damage and environmental impact.
- By delivering predictable sealing performance, SuprSeal AS reduces non-productive time and improves overall drilling efficiency.
- SuprSeal AS is effective in high fluid loss squeeze treatments, forming a stable plug that dewater and consolidates within fractures and high-permeability zones to restore circulation.

Application

- SuprSeal AS is used for preventative sweeps and remedial pill treatments in formations experiencing low to severe fluid losses.
- The technology can be deployed in water-based, oil-based, and non-aqueous drilling fluid systems for operational flexibility.
- The product may be added as a continuous loss prevention additive or built into concentrated LCM pills for spot treatments.
- SuprSeal AS is effective in carbonate reservoirs and mixed lithology environments where fracture sealing is required.
- Proper application enhances drilling efficiency, maintains well integrity, and supports optimized hydrocarbon recovery.
- The material is well suited for high fluid loss squeeze operations where severe losses require a concentrated LCM pill to be placed and compressed into the loss interval.

Environmental Advantage

- Helps quickly stop fluid losses and restore circulation, minimizing drilling fluid discharge and reducing the environmental footprint of loss events.
- Reduces the need for repeated loss circulation treatments, lowering total material usage during drilling operations.
- Compatible with most water-based and oil-based drilling fluids, supporting efficient fluid management and reduced system disposal.
- Durable sealing properties help maintain wellbore stability, decreasing the likelihood of additional remedial treatments and associated material use.

Treatment Recommendations

- SuprSeal AS acid soluble LCM should be added slowly through the hopper to ensure proper dispersion, allowing approximately 20 to 30 minutes per sack during mixing. The product may be used as a continuous addition for loss prevention or built into a concentrated LCM pill depending on loss severity and well conditions.
- For moderate to severe losses, the LCM pill should be spotted across the loss zone and allowed sufficient time to dewater and form an effective seal. All line volumes should be verified prior to pumping to ensure accurate placement of the pill across the targeted interval.
- Mud engineers and drilling supervisors should follow established LCM decision trees and operational procedures to confirm appropriate concentration and treatment design.

Physical Properties

Appearance: Tan to off-white powder material with flakes

Specific Gravity: 2-2.1

Acid Solubility: 94%+

Temperature: Up to 350°F (177°C)

Handling and Storage

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



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