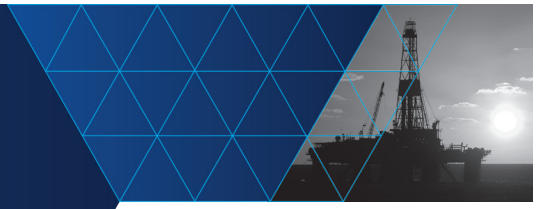
SPECIFICATIONS

FLC® FINE

Wellbore Stabilizer



Product Specifications

DESCRIPTION

FLC® FINE wellbore stabilizer is a proprietary highly processed and balanced blend of cellulosic (modified polymers and solids) and other materials that generate a fast, effective seal to minimize fluid and pressure invasion. The low permeability seal created by FLC FINE limits transmission of destabilizing wellbore pressure into the formation. This barrier, or 'shield' minimizes formation damage and prevents fractures from propagating.

ADVANTAGE

- Operators drill safely with mud densities greater than the fracture initiation pressure
- Protects mechanically weak and interbedded shales to prevent sloughing, washouts, hold closures or collapse
- Eliminates differential sticking in high permeability formations
- Optimizes production by minimizing invasion in depleted formations
- Does not shear degrade and has a broad particle size distribution
- High temperature stability over 204°C (400°F)

APPLICATION

- Seals fractures up to 150 µm while the smaller particle size improves solids control, reducing maintenance costs without compromising performance.
- Optimizes wellbore stability in a variety of drilling conditions including: deepwater applications, depleted or poorly consolidated formations, interbedded formations, mechanically weak formations
- Equally effective in water-, oil- or synthetic-based drilling fluid systems

RESERVOIR PERFORMANCE

- Suitable for use in all sections of the well including the reservoir
- Demonstrated to be non-damaging in independent third party testing

ENVIRONMENTAL ADVANTAGE

- Environmentally compliant for use in all areas
- PLONOR listed for North Sea use, HMCS Category P, OCNS Group E
- Passes the North America 96-hr LC50 bioassay mysid shrimp

TREATMENT RECOMMENDATIONS

- Effective at concentrations as low as 4-6 lb/bbl
- Designed for use in the circulating fluid system
- Concentration can be monitored by Impact's proprietary Sand Bed Tester

PHYSICAL PROPERTIES

- Appearance: Light tan, free-flowing powder
- pH: 6-7 in fresh water
- Specific gravity: 1.5-1.6 g/cm^3 (12.5-13.3 lb/gal)
- Does not contain graphite, asphalt, gilsonite or other black powder based material

HANDLING AND STORAGE

FLC FINE should be stored in a dry environment. Avoid excessive dust and inhalation. Use appropriate PPE and review the SDS before use.

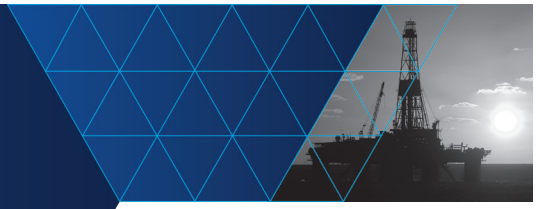
PACKAGING

FLC FINE is available in 25-lb, multi-walled bags – 48 sack per pallet.

SPECIFICATIONS

FLC 2000®

Wellbore Stabilizer



Product Specifications

DESCRIPTION

FLC 2000® wellbore stabilizer is a proprietary blend of cellulosic (modified polymers and solids) and other materials that generate a fast, effective seal to minimize fluid and pressure invasion. The low permeability seal created by FLC 2000 limits transmission of destabilizing wellbore pressure into the formation. This barrier, or 'shield' minimizes formation damage and prevents fractures from propagating.

ADVANTAGE

- Operators drill safely with mud densities greater than the fracture initiation pressure
- Protects mechanically weak and interbedded shales to prevent sloughing, washouts, hold closures or collapse
- Eliminates differential sticking in high permeability formations
- Optimizes production by minimizing invasion in depleted formations
- Does not shear degrade and has a broad particle size distribution
- High temperature stability over 204°C (400°F)

APPLICATION

- Seals up to 250 µm fractures – our original Wellbore Shielding® solution
- Optimizes wellbore stability in a variety of drilling conditions including: deepwater applications, depleted or poorly consolidated formations, interbedded formations, mechanically weak formations
- Equally effective in water-, oil- or synthetic-based drilling fluid systems

RESERVOIR PERFORMANCE

- Suitable for use in all sections of the well including the reservoir
- Demonstrated to be non-damaging in independent third party testing

ENVIRONMENTAL ADVANTAGE

- Environmentally compliant for use in all areas
- PLONOR listed for North Sea use, HMCS Category P, OCNS Group E
- Passes the North America 96-hr LC50 bioassay mysid shrimp

TREATMENT RECOMMENDATIONS

- Effective at concentrations as low as 4-6 lb/bbl
- Designed for use in the circulating fluid system
- Concentration can be monitored by Impact's proprietary Sand Bed Tester

PHYSICAL PROPERTIES

- Appearance: Light tan, free-flowing powder
- pH: 6-7 in fresh water
- Specific gravity: 1.5-1.6 g/cm^3 (12.5-13.3 lb/gal)
- Does not contain graphite, asphalt, gilsonite or other black powder based material

HANDLING AND STORAGE

FLC 2000 should be stored in a dry environment. Avoid excessive dust and inhalation. Use appropriate PPE and review the SDS before use.

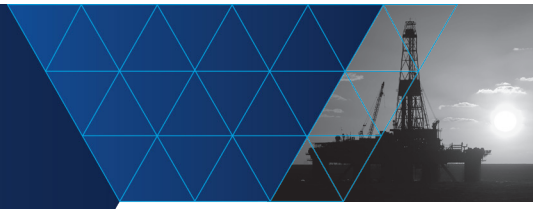
PACKAGING

FLC 2000 is available in 25-lb, multi-walled bags – 48 sack per pallet.

SPECIFICATIONS

FLC® SUPREME

Wellbore Stabilizer



Product Specifications

DESCRIPTION

FLC® SUPREME wellbore stabilizer is a proprietary blend of cellulosic fibers and granules and other materials that generate a fast, effective seal to minimize fluid and pressure invasion. The low permeability seal created by FLC SUPREME limits transmission of destabilizing wellbore pressure into the formation. This barrier, or 'shield' minimizes formation damage and prevents fractures from propagating.

ADVANTAGE

- Operators drill safely with mud densities greater than the fracture initiation pressure
- Protects mechanically weak and interbedded shales to prevent sloughing, washouts, hold closures or collapse
- Eliminates differential sticking in high permeability formations
- Optimizes production by minimizing invasion in depleted formations
- High temperature stability over 204°C (400°F)

APPLICATION

- Seals fractures up to 500 µm with a broad sealing range that allows for continual use of shale shaker systems.
- Optimizes wellbore stability in a variety of drilling conditions including: deepwater applications, depleted or poorly consolidated formations, interbedded formations, mechanically weak formations
- Effective in water-, oil- or synthetic-based drilling fluid systems

RESERVOIR PERFORMANCE

- Suitable for use in all sections of the well including the reservoir
- Demonstrated to be non-damaging in independent third party testing

ENVIRONMENTAL ADVANTAGE

- Environmentally compliant for use in all areas
- PLONOR listed for North Sea use, HMCS Category P, OCNS Group E
- Passes the North America 96-hr LC50 bioassay mysid shrimp

TREATMENT RECOMMENDATIONS

- Effective at concentrations as low as 5-10 lb/bbl
- Designed for use in the circulating fluid system
- Recommended use with 40-60 mesh screens
- Concentration can be monitored by Impact's proprietary Sand Bed Tester

PHYSICAL PROPERTIES

- Appearance: Light tan, free-flowing powder
- pH: 6-7 in fresh water
- Specific gravity: 1.4-1.5 g/cm^3 (11.7-12.5 lb/gal)
- Does not contain graphite, asphalt, gilsonite or other black powder based material

HANDLING AND STORAGE

FLC SUPREME should be stored in a dry environment. Avoid excessive dust and inhalation. Use appropriate PPE and review the SDS before use.

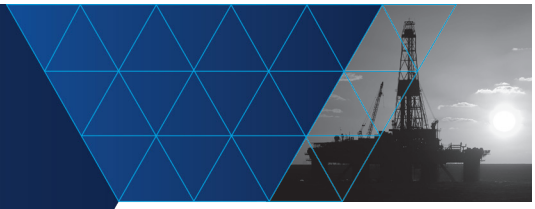
PACKAGING

FLC SUPREME is available in 25-lb, multi-walled bags – 48 sack per pallet.

SPECIFICATIONS

FLC® EXTREME

Wellbore Stabilizer



Product Specifications

DESCRIPTION

FLC® EXTREME wellbore stabilizer is a proprietary blend of cellulosic fibers and granules and other materials that generate a fast, effective seal to minimize fluid and pressure invasion. The low permeability seal created by FLC EXTREME limits transmission of destabilizing wellbore pressure into the formation. This barrier, or 'shield' minimizes formation damage and prevents fractures from propagating.

ADVANTAGE

- Operators drill safely with mud densities greater than the fracture initiation pressure
- Protects mechanically weak and interbedded shales to prevent sloughing, washouts, hold closures or collapse
- Eliminates differential sticking in high permeability formations
- Optimizes production by minimizing invasion in depleted formations
- Does not shear degrade and has a broad particle size distribution
- High temperature stability over 204°C (400°F)

APPLICATION

- Seals 500 to 3000 µm fractures at high differential pressures, offering a comprehensive range of sealing capabilities that allows for continual use of shale shaker systems.
- Optimizes wellbore stability in a variety of drilling conditions including: deepwater applications, depleted or poorly consolidated formations, interbedded formations, mechanically weak formations
- Effective in water-, oil- or synthetic-based drilling fluid systems

RESERVOIR PERFORMANCE

- Suitable for use in all sections of the well including the reservoir
- Demonstrated to be non-damaging in independent third party testing

ENVIRONMENTAL ADVANTAGE

- Environmentally compliant for use in all areas
- PLONOR listed for North Sea use, HMCS Category P, OCNS Group E
- Passes the North America 96-hr LC50 bioassay mysid shrimp

TREATMENT RECOMMENDATIONS

- Effective at concentrations as low as 8-30 lb/bbl
- Designed for use in the circulating fluid system
- Recommended use with 10-30 mesh screens
- Concentration can be monitored by Impact's proprietary Sand Bed Tester

PHYSICAL PROPERTIES

- Appearance: Light tan, free-flowing powder
- pH: 6-7 in fresh water
- Specific gravity: 1.4-1.5 g/cm^3 (11.7-12.5 lb/gal)
- Does not contain graphite, asphalt, gilsonite or other black powder based material

HANDLING AND STORAGE

FLC EXTREME should be stored in a dry environment. Avoid excessive dust and inhalation. Use appropriate PPE and review the SDS before use.

PACKAGING

FLC EXTREME is available in 25-lb, multi-walled bags – 48 sack per pallet.