

# STAR SHIELD®

## Wellbore Stabilizer

## Product Specifications



### DESCRIPTION

STAR SHIELD® wellbore stabilizer is a preventative wellbore shielding® additive enabling operators to successfully drill in challenging formations. STAR SHIELD protects the formation by minimizing fluid and pressure invasion into matrix pores and microfractures by creating a 'shield' against the rock-fluid interface. STAR SHIELD technology – the additive advantage, adopted by major operators in unconventional shale plays in North America and deepwater Gulf of Mexico.

### ADVANTAGE

Operators drill safely with mud densities greater than the fracture initiation pressure

Eliminates differential sticking in high permeability formations

Does not shear degrade and has a broad particle size distribution

High temperature stability (over 400°F)

### APPLICATION

Seals up to 250 µm fractures at high differential pressure

Performs in circulating system with API 70 mesh screens

Effective in water-, oil- or synthetic-based drilling fluid systems

### RESERVOIR PERFORMANCE

Demonstrated to be non-damaging in independent 3rd party testing

Lab testing using tight perm field rock and 350mD Clashach cores demonstrates low flow initiation pressure

### ENVIRONMENTAL ADVANTAGE

Environmentally compliant for use in all areas in North America

Passes the North America 96-hr LC50 bioassay mysid shrimp

### TREATMENT RECOMMENDATIONS

Effective at concentrations as low as 3-12 ppb

Designed for use in the circulating fluid system

Concentration can be monitored by Impact's proprietary Sand Bed Tester

### PHYSICAL PROPERTIES

Appearance: Light tan powder

pH: 6-7 in fresh water

Specific gravity: 1.6-1.7 g/cm<sup>3</sup>

Does not contain Graphite, Asphalt, Gilsonite or other black powder based material

### HANDLING AND STORAGE

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

### PACKAGING

STAR SHIELD® is available in 25-lb, multi-walled bags – 48 sack per pallet