



## Product Information

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### G-Seal

#### **DESCRIPTION**

G-SEAL graphite is a coarse-sized plugging agent used to bridge and seal permeable formations in water-, oil- or synthetic-base mud systems. When drilling depleted zones where high differential pressures exist, the bridging and plugging capabilities of G-SEAL additive reduce differential-pressure sticking tendencies. It can be used to control seepage in partial-to- severe lost-circulation zones.

G-SEAL additive is completely inert and does not affect rheological properties. It reduces torque and drag by increasing the lubricity and lowers the spurt and total filtrate loss values in Permeability Plugging Test (PPT) and sandbed laboratory studies.

#### **Applications**

G-SEAL additive is designed to bridge and seal permeable formations, reducing the possibility of differential sticking, controlling lost circulation and increasing lubricity. The recommended treatment for seepage losses (<10 bbl/hr or 1.6 m<sup>3</sup>/hr) is 15 to 20 lb/bbl (43 to 57 kg/m<sup>3</sup>) in spotted pills or sweeps. The pills can be incorporated into the entire system for a total concentration of 5 to 10 lb/bbl (14 to 29 kg/m<sup>3</sup>). However, when the pill returns to the surface, the shaker screens must be monitored for losses and changed if possible. If changing shaker screens is not practical, the pill can be diverted to a standby pit when it returns to surface, reconditioned and used again as a spot or sweep.

The recommended treatment for partial losses (20 to 50 bbl/hr or 3 to 8 m<sup>3</sup>/hr) is 20 to 50 lb/bbl (57 to 143 kg/m<sup>3</sup>) in spotted pills. G-SEAL additive can be used in combination with other lost-circulation materials to control partial-to-severe losses. Very high permeability formations such as fractured carbonates and conglomerate zones may require additional pills in conjunction with a variety of lost-circulation materials of varied particle size distribution. Torque and drag may be reduced by incorporating G-SEAL spots and sweeps into the active system up to a total concentration of 10 lb/bbl (29 kg/m<sup>3</sup>). Initial treatments for the active system may be added at 2 lb/bbl (5.7 kg/m<sup>3</sup>) increments while monitoring torque and drag. G-SEAL additive can require additional wetting agent when used in an oil- or synthetic-base mud system.

#### **HANDLING**

For specific precautions and handling see MSDS information.

#### **AVAILABILITY**

G-SEAL is packaged in 25kg sacks and is available from HiTech Fluid Systems Ltd.