## PRODUCT DATA SHEET

## **Product Description**

InstanShield-C fine-sized granular lost circulation material is specially engineered to help instantaneously turn drilling mud into a super-low-invasion fluid by immediately sealing micro-fractures or pores at the initial contact. Lab tests indicate that, with InstanShield-C, spurt loss can be as low as just a single drop for an inch long 200-micron slot. It may take as little as only 0.1 gram of the product to seal a foot long slot therefore it is highly efficient in sealing. With such low invasion, weak wellbores can be substantially strengthened and stabilized so that operators can enjoy substantial cost reduction by minimizing loss of mud, eliminating NPT and increasing ROP. InstanShield-C, either in WBM or OBM, is recommended to be used as a continuous LCM treatment at a relatively low concentration in all of the active drilling fluid while shale shakers are equipped with API #60 screens or coarser to retain the majority of the product. Our patent pending Seal2Strengthen<sup>TM</sup> wellbore strengthening engineering method can be used to define the needed concentration based on understanding of the rock mechanical properties and drilling conditions.

# **Applications**

- Strengthens depleted formations to skip a set of casing (high concentrations)
- Stabilizes unconsolidated formations (coal or loose sand) to smoothen drilling (medium concentrations)
- Stops resilient background seepage losses of expensive oil based mud (low concentrations)

# **Advantages**

- Easy to use by directly adding to the active mud
- Tight sealing at a low concentration
- Enables a fine shaker screen for LGS control
- Low density for high efficiency
- Batch-by-batch performance tests assures reliability

# **Typical Properties**

Appearance: Grey Particles

Solubility: Only partially acid soluble

• Specific Gravity: 1.2~1.7

Particle Size: Most are smaller than 60 mesh

#### **Recommended Treatment**

Treat all of the active mud with InstanShield-C at a concentration of  $5^{15}$  lb/bbl depending on the purpose. Use API #60 mesh shale shaker screens to retain the product. If used as sweep pills, the concentration is recommended as  $20^{30}$  lb/bbl.

## **Packaging**

InstanShield-C lost circulation material is packaged in 25 lb (11.3 kg) sacks and 96 sacks a pallet.

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