

Fine Bridging Agent KDF006F

1. Introduction

Bridging agents are typically used in drilling fluids to bridge across the pores and micro fractures of the formation rock in order to minimize the fluid loss and potential formation damage.

KDF006F is calcium carbonate particles with size ranges between 5 μm and 50 μm . It not only works as bridging agent to reduce fluid loss of the drilling fluids but also provides additional density if required. KDF006F is highly acid soluble therefore it is a non-damaging bridging agent which is beneficial for Drill-In-Fluids (DIFs) design.

2. Physical Properties and Hazards

Additives	Form	S.G.	Water Solubility	Melting/Flash Point ($^{\circ}\text{C}$)	Health Hazard	Physical Hazard	pH
KDF006F	White Powder	2.70-2.80	Insoluble	-	Inhalation	Dust	N/A

3. Chemical Properties and Application

Specially designed particle size distribution and more than 98% acid solubility of KDF006F make it effective in plugging the pore throats and micro fractures of the formation rocks without potential formation damage.

KDF006F is derived from well-crystallized minerals and will not break down under high shear conditions encountered. KDF006F is generally used together with KDF006M and KDF006C in order to optimize the plugging effectiveness. KDF006F is mainly used as a bridging and weighting agent in drilling, drill-in and workover/completion fluids, however, it also can be used as lost circulation material and in squeeze treatment mixtures.

Chemical Nature: CaCO_3 with Molecular Weight 100
 Solubility: Soluble in 15% HCl at 24°C (75°F): $\geq 98\%$.
 Temperature Limit: Stable up to 400°F while used in most drilling fluid systems

4. Treatment

KDF006F is typically used as blends to treat the entire drilling fluids at total concentration of 3.5-21 lbm/bbl ($10\text{-}60\text{ kg/m}^3$).

5. Packaging

KDF006F is supplied in 25 KG sacks or 1 MT jumbo bags.

Keep it away from extreme conditions such as places are wet and humid or direct sunlight.