

# High Density Coarse Particles KCM019

## 1. Introduction

High pore pressure, unstable wellbores and deformable or plastic formations are controlled by high hydrostatic pressures, under such conditions, high density drilling fluid are required to maintain control of such wells, the equal or greater density of cement slurry are also required during the operation of cement placement.

Simply reducing the amount of mix water will increase the slurry density, but it would difficult to maintain mixing and pumpability, adequate fluid loss control, and acceptable slurry rheology and no solid settling. Therefore, when higher density is required, materials with high specific gravity are added with compatible particle size distribution with cement, lower mix water requirement, the material must be inert with respect to cement hydration and compatible

## 2. Physical Properties and Hazards

Additives	Form	S.G.	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KCM019	Black powder	4.80-5.20	Insoluble	>93	None	None	N/A

## 3. Chemical Properties and Application

KCM019 is an inert iron oxide mineral with high specific gravity, it greatly increases slurry density without adversely affecting the properties of cement system. KCM019 is finely disperse material which absorbs very little water.

The thickening time with KCM019 will vary depending upon the well condition and amount of KCM019 required; therefore, thickening time must be individually tested in the laboratory with actual material used.

Except large amount of KCM019 is used, there will be a little effect on the compressive strengths of various cement system. The slurry with higher concentration of KCM019 will have lower compressive strength than the reduced water slurries.

## 4. Treatment

KCM019 is normally used to prepare the cement slurry with densities up to 2.28g/cm<sup>3</sup> (19.0lb/gal), the concentration up to 100%BWOC.

## 5. Packaging

KCM019 is supplied in plastic-lining bags with net weight of 25kg/sack. It should be stored in shaded areas with good ventilation. Keep it away from high temperature, humidity and direct sunlight.