

Extender KCM005

1. Introduction

In oil well cementing, extender KCM005 allows use of extra water in cement slurry without water separation. Extra water added will reduce slurry density and improve fluid loss control of the cement slurry.

2. Physical Properties and Hazards

Additive	Form	S.G.	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KCM005	Red-brown Powder	1.70-1.90	Hydration	>200	Eyes, Inhalation	Dust, Water Slick	7.5-8.5

3. Chemical Properties and Application

Theoretically KCM005 can be used for most applicable slurry densities and well temperature because of its inorganic nature.

KCM005 hydrates in water to form colloidal particles, which increases slurry viscosity and reduces fluid loss of cement slurry. In addition, KCM005 hydration allows addition of extra water in cement slurry, resulting in reduced slurry density and high yield, which help in prolonged suspension of cement particles.

However, care should be taken that KCM005 will affect thickening time, which is generally reduced by adding more KCM005 in cement slurry. KCM005 also has adverse effect on compressive strength of set cement. High concentration of KCM005 is not recommended at elevated temperature (>220°F) due to significant reduction of compressive strength.

4. Treatment

Up to 25% BWOC can be used in cement slurry, however slurry viscosity will increase as KCM005 concentration increases, therefore dispersants are generally required in slurry mixing when KCM005 concentration exceeds 5%BWOC.

5. Packaging

KCM005 is supplied in plastic-lining bags with net weight of 25 kg/sack.

It should be stored in shaded areas with good ventilation. Keep it away from high temperature, humidity, and direct sunlight.