

Multi-functional Extender KCM029

1. Introduction

Addition of conventional cement extenders into low-density cement slurries causes poor compressive strength development and high permeability of cement.

Adding KCM029 into cement slurry not only reduces slurry density but also improves compressive strength development and decreases permeability of set-cement. Further density reduction is obtained if KCM029 is properly added into PETCem-LD cement systems.

2. Physical Properties and Hazards

Additive	Form	S.G.	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KCM029	Gray Powder	2.89-3.09	Insoluble	Not Combustible	Eyes, Inhalation	Dust	N/A

3. Chemical Properties and Application

KCM029 is inorganic powder that can be added into cement systems to reduce slurry density. More water can be added into cement slurry while maintaining stability and good compressive strength development because of high specific surface area of KCM029. Further slurry density reduction can be achieved if controlled-size KCM029 is added into low density cement slurries.

Experimental results indicate that KCM029 improves cement resistance to chemical corrosions significantly due to chemical and physical nature of KCM029.

Theoretically KCM029 can be used at any applicable cementing temperature and hydrostatic pressure.

KCM029 is compatible with most cement additives and can be used in fresh, salt and seawater cement slurries.

4. Treatment

Typically, 5-20% BWOC is good enough in designing slurries containing KCM029. However, special job design tool is available to calculate the amount of KCM029 required for PETCem system design. Please contact field engineers for advice.

5. Packaging

KCM029 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.