

Micro Silica KCM032

1. Introduction

Medium density extender KCM032 is one of the cement extenders conventionally used for preparing low density cement slurries. Addition of KCM032 will reduce the amount of cement and increase the amount of water required in cement slurry so that slurry density is decreased.

Further density reduction is obtained if KCM032 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
KCM032	Gray Powder	2.48-2.68	Insoluble	Not Combustible	Eyes, Inhalation	Dust	N/A

3. Chemical Properties and Application

KCM032 is sand powder that can be added into cement systems to reduce slurry density. More water can be added into cement slurries while maintaining stable slurry and good fluid loss control of cement slurry because of high specific surface area of KCM032 powder.

Further density reduction can be achieved if controlled-size KCM032 is added into low density cement slurries while maintaining proper compressive strength development and slurry rheological properties.

KCM032 can also be used at high temperature slurries to prevent strength retrogression.

Theoretically KCM032 can be used at any applicable temperature and hydrostatic pressure.

KCM032 is compatible with most cement additives and can be used in fresh, salt and seawater slurries.

4. Treatment

Typically, 5-20% BWOC is good enough in designing slurries containing KCM032. However, special job designing tool is available to calculate amount of KCM032 required for PETCem system design. Please contact field engineers for advice.

5. Packaging

KCM032 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.