

Silica Fume KCM033

1. Introduction

Light weight extender KCM033 is one of the light weight extenders conventionally used for preparing low density cement slurries. Addition of KCM033 will reduce the amount of cement and increase the amount of water required in cement slurry so that slurry density is decreased. KCM033 also helps to improve cement compressive strength development.

Further density reduction is obtained if KCM033 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
KCM033	Gray Powder	2.36-2.56	Insoluble	Not Combustible	Eyes, Inhalation	Dust	N/A

3. Chemical Properties and Application

KCM033 is nano-sized material that can be added into cement systems to reduce slurry density. More water can be added into cement slurries while maintaining stable slurry and early compressive strength development because KCM033 is a reactive cement extender. KCM033 is generally used in cement slurries for low temperature application (less than 200°F) since it is too reactive at high temperature. Light weight extender KCM033 is used for preparation of cement slurry in density range of 1.3 to 1.6 g/cc. Caution should be taken while adding higher concentration (greater than 10%BWOC) of KCM033 since it increases fluid loss and viscosity of cement slurry.

KCM033 is compatible with most cement additives and can be used in fresh, salt and seawater cement slurries.

4. Treatment

Typically, 5-15% BWOC is good enough in designing slurries containing KCM033. However special job designing tool is available to calculate amount of KCM033 required for PETCem system design. Please contact field engineers for advice.

5. Packaging

KCM033 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.