

Low Temperature Accelerator KCM009

1. Introduction

It generally takes longer time for cement to set at low temperature. Accelerator is typically used at low temperature to reduce time for cement hydration and compressive strength development.

KCM009 is a low temperature liquid accelerator to improve cement set profile at low temperature, especially for offshore cementing operations wherever a liquid additive is advantageous.

2. Physical Properties and Hazards

Additive	Form	S.G.	Water Solubility	Melting/Flash Point (°C)	Health Hazard	Physical Hazard	pH
KCM009	Light Green Liquid	1.33-1.43	Soluble	>93	Eyes, Skin	Wet	8-10

3. Chemical Properties and Application

KCM009 is a mixture of multiple accelerators to improve the cement set behavior. The synergistic effect of various accelerators in KCM009 kinetically improve the cement hydration process and reduce gel time to develop the compressive strength earlier at low temperature.

KCM009 is widely used in offshore operations where the BHST is in the range of 7.2°C (45°F) to 54.4°C (130°F). Together with dispersant KCM010 and fluid loss control agent KCM016L, the cement slurry containing KCM009 will provide the controllable, predictable, and shorter thickening and gelling time.

OPT cement additives such as KCM002, KCM017, KCM065, KCM008 are NOT compatible with KCM009 because of their retarding effect at low temperature conditions.

The cement systems containing KCM009 and KCM010 can also be designed as unconventional density slurries.

4. Treatment

0.1-0.5gps is typically enough to provide proper thickening time and compressive strength development profile. 0.25gps is considered optimum concentration in most offshore cement slurry design.

5. Packaging

KCM009 is supplied in 5 gallons high density polyethylene (HDPE) drums or 53 gallons steel drums.

Keep it away from extreme conditions such as places near flames or direct sunlight.