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Lithkem Plus Super Fine

Powder set accelerator and early age strength enhancer for fast setting cement systems based on Portland cement and High Alumina cements and Calcium Sulfoaluminate (CSA) binder systems.

LITHKEM PLUS SUPER FINE is novel blend of inorganic compounds specifically designed to provide rapid set times and high early strengths in dry mortar mixes based on Portland cement blended with High Alumina cement (HAC) or Calcium Sulfoaluminate (CSA) cement.

LITHKEM PLUS SUPER FINE has been developed as an alternative to Lithium based cement accelerators, which are currently subject to rapidly rising prices due and reduced availability due to demand from global battery manufacturers.

LITHKEM PLUS SUPER FINE is an ultra-fine, free flowing powder which provides homogenous dispersion in bagged cementitious mortars and greater reactivity. The ultra-fine particle size allows improved dispersion within the powder and helps prevent surface spotting on self-levelling floor underlayments and screeds.

Action

LITHKEM PLUS SUPER FINE is an extremely effective accelerator providing rapid early setting times and increased early age strengths.

The synergistic blend of ingredients in LITHKEM PLUS SUPER FINE have been designed to activate the hydration process more rapidly in both Portland, HAC and CSA cement phases. Conventional Lithium Carbonate accelerators tend to react solely with the CSA and have no effect on Portland cement hydration. This results in a large portion of the binder systems being unaffected and the action of standard accelerators being inefficient. LITHKEM PLUS SUPER FINE accelerates the hydration process in all cements, making it a much more efficient accelerator with performance being proportional to dosage rate.

Applications

LITHKEM PLUS SUPER FINE is a set time accelerator and early age strength enhancer for fast setting cement based products such as tile adhesives, tile grouts, self levelling floor screeds and concrete repair systems. Predominantly, it's used in cement based systems where rapid fixing and laying is the main criteria.

Benefits

- Provides rapid set times in OPC/CSA systems
- Enhanced early age strengths.
- Improved performance in low temperatures
- Cost effective alternative to conventional accelerators

Properties

Nature: Powder
Colour: Off white
Bulk Density (Loose) = 0.60 g/cm³ ±0.02 g/cm³
Bulk Density (Tapped) = 1.25 g/cm³ ±0.02 g/cm³

Addition rates

Dosage rate is dependent on mix design, process, and types of materials and required performance in terms of set times and early age strengths.

Recommended dosage levels are in the range of 0.15% - 0.5% on weight of formulation.

Typically, LITHKEM PLUS SUPER FINE can be used as a direct replacement for Lithium on a dose to dose basis.

Compatibility

LITHKEM PLUS SUPER FINE is suitable for use with all cement types and hydraulic binders, included ground granulated blast furnace slag, pulverised fly ash, hydrated lime and gypsum.

Storage

LITHKEM PLUS SUPER FINE should be stored in cool, dry conditions. Unopened bags, if stored correctly, have a minimum shelf life of 12 months.

Handling

Avoid contact with skin and eyes. Protective goggles and gloves should be worn at all times.

Packaging

LITHKEM PLUS SUPER FINE is supplied in a 25kg sack with inner polyethylene liner. 40 x 25kg bags per pallets.

Method of use

LITHKEM PLUS SUPER FINE should be added to the blender following addition of sand and cement to ensure homogeneous dispersion.

Additional rates

Natural variations in cement, hydraulic binders and aggregates can affect the dosage rate required to achieve the desired set times and early strengths. CEMKEM always recommend lab trials should be carried out to determine the optimal dosage levels.

Addition level in the range of 0.15% - 0.5% on weight of formulation is recommended. Typically, LITHKEM PLUS SUPER FINE can be used as a straight replacement for Lithium Carbonate.

Please note that excessive levels of LITHKEM PLUS SUPER FINE will result rapid acceleration of setting times.

For any queries, please consult CEMKEM technical department.



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