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# KEMPLAST 3000

**Developed and manufactured in UK, KEMPLAST 3000 is an extremely high efficiency anionic superplasticiser based on polycarboxylate technology combined with unique stabilisation technology.**

## Description

KEMPLAST 3000 is a polycarboxylate ether powder developed for use in SLU and floor screeds to provide high levels of flow over a prolonged period without affecting setting times and in mortars to reduce the water/cement ratio to improve strengths, KEMPLAST 3000 is highly recommended for use in ternary binders based on Portland cement and High alumina or CSA cements

## Action

KEMPLAST 3000 is an extremely effective Polycarboxylate (PCE) superplasticiser, providing greater flow and flow retention within the mortar.

Polycarboxylate ethers superplasticisers, are not only chemically different from the older sulfonated melamine and naphthalene-based products, but their action mechanism is also different, providing deflocculation/dispersion of cement particles through steric stabilisation, instead of electrostatic repulsion. This form of dispersion is more powerful in its effect and gives improved workability retention to the cementitious mix. Additionally, the chemical structure of PCE allows for improved chemical modification offering a range of performance that can be tailored to meet specific needs.

KEMPLAST 3000 provides excellent flow and has been chemically modified to provide rheological properties which reduces occurrence of bleed and segregation on the surface, avoiding the need to add expensive rheological modifiers into the dry bagged mortar formulation.

## Applications

KEMPLAST 3000 is a PCE superplasticizer which provides excellent flow properties in self levelling screeds and grouts based on ternary binders or anhydrite.

KEMPLAST 3000 also provides high levels of water reduction which reduces the water/cement ratio increasing compressive strengths and mortar durability.

## Benefits

- Enhanced flow
- High water reduction
- Prevents bleeding/segregation
- Compatible with all cement types, gypsum and anhydrite.
- High early and final strengths.
- For use in self-levelling and self-compacting concretes

## Properties

Appearance: white powder  
% Active Polymer: >90%  
Ionic Character: Anionic  
Bulk Density: 0.4-0.5 g/cm<sup>3</sup>  
pH (0.5% in water): 5.5-6.0

## Addition rates:

Natural variations in cements, hydraulic binders, gypsum, aggregates and temperature all affect the addition level required for a given workability and retardation period. Trials should be carried out to determine optimum dosage levels.

As an initial guide, an addition level of 0.15 – 0.3% on formulation is recommended.

This may have to be adjusted depending on the flow or water reduction required.

## Compatibility:

KEMPLAST 3000 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:

KEMPLAST 3000 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:

KEMPLAST 3000 is supplied in a 20kg sack with inner polyethylene liner.  
25 x 20kg bags per pallets

## Method of use

KEMPLAST 3000 should be added to the blender following addition of sand and cement to ensure homogeneous dispersion.

For any queries, please consult CEMKEM technical department.



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