

OSPERSE D73

Set Retarding Additive

Description

Osperse D73 is a specially formulated set retarding additive designed as a replacement for Tartaric acid in cement and gypsum based systems.

Osperse D73 is based on a blend of polyhydroxycarboxylic acids and is a fine, free-flowing powder which dramatically improves dispersion in dry bagged cementitious and gypsum based systems.

Osperse D73 retarder slows down the setting and early stiffening of cement and gypsum based systems, producing a prolonged working time by slowing down the initial reaction between hydraulic binders and water. Retarders work by reducing the rate of water penetration to the cement and slowing down the growth of hydrated products.

Applications

Osperse D73 is used to control and extend the setting time of cement and gypsum based materials. It is especially recommended for use in systems based on High Alumina cement (HAC) and blends of Ordinary Portland Cement (OPC) and HAC as a replacement for tartaric acid.

Standards

Osperse D73 is produced in accordance with the ISO 9001 Quality Management Standard and the ISO 14001 Environmental Management Standard.



Properties

Nature	Powder
Colour	White
Bulk Density	0.985 g/cm ³

Benefits in Concrete

- Straight replacement for more costly tartaric acid retarders without compromising performance.
- Increased workability time of cementitious and gypsum systems by controlled set.
- Hot weather problems reduced.
- Agglomeration during storage minimised with free-flowing powder. Sieving is not required prior to blending with cement, aggregates etc.
- White specks in the final applied product minimised by fine powder. Badly dispersed / agglomerated powder or crystalline grades generally cause surface blemishes

Addition Rates

Dosage rates will be dependant on mix design, process, types of materials and the desired effect but typically:

0.1% - 0.2% by weight of formulation

0.15% by weight of gypsum



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construction products



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Compatibility

Osperse D73 is compatible with all cement types and hydraulic binders, including ground granulated blast furnace slag, pulverised fly ash, hydrated lime and gypsum

Storage

Osperse D73 is a pressure sensitive powder and should be stored in cool, dry conditions. Unopened bags, if correctly stored, have a minimum shelf life of one year.

Handling

Avoid contact with skin or eyes. Protective goggles and gloves should be worn.

Refer to the Material Safety Data Sheet for full details.

Packaging

Osperse D73 is supplied in a 20kg sack with inner polyethylene liner.

Disclaimer

The physical properties quoted are typical, and should not be taken as a specification. The information supplied in our literature is based on data and experience and is given in good faith. Our policy is one of continuous research and development and we reserve the right to update this information at any time; customers should therefore ensure they have the latest issue. Whilst we guarantee the consistent high quality of our products, we have no control over the circumstances in which our materials are used, site conditions or the execution of the work and are therefore unable to accept any liability for any loss or damage which may arise as a result thereof. Materials are supplied in accordance with our standard conditions of sale.

Method of Use

Osperse D73 should be added to the mixer after the addition of sand and cement to provide adequate dispersion in the finished product.

Addition Level

The natural variations in cements, hydraulic binders, gypsum, aggregates and ambient 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 0.1-0.2% by weight of formulation and 0.15% in weight of gypsum is recommended. This may have to be adjusted depending on the retardation period required, raw materials and application.

High levels of **Osperse D73** will result in increased set retardation. The amount of retardation will depend upon the actual level, temperature, cement type and content. Over-retarded hydraulic systems, if properly cured, will not be adversely affected after the set occurs with strength and durability unaffected. Excessive addition levels could permanently prevent hydration.

Please consult the OSCRETE Technical Department for advice on admixture selection.

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