

MasterLife[®] SF 3263

Silica fume mineral admixture in slurry form

DESCRIPTION

MasterLife SF 3263 is silica fume mineral admixture in slurry form formulated to produce concrete with special performance qualities. It improves the hardened characteristics of concrete in two main ways:

Firstly, **MasterLife SF 3263** is a pozzolan which reacts chemically to increase the amount of calcium silicate hydrate gel formed, thus improving the strength and impermeability of the concrete. Secondly, **MasterLife SF 3263** is an ultra-fine material that physically fills the voids between cement particles resulting in an extremely dense and impermeable concrete.

MasterLife SF 3263 meets ASTM C1240 requirements.

RECOMMENDED USES

The reduced permeability of concrete produced with **MasterLife SF 3263** greatly limits the ingress of water, chlorides, sulphates, and aggressive chemicals known for promoting reinforcing steel corrosion and other distress in the concrete. This makes **MasterLife SF 3263** an ideal product for use in basement structures, parking decks, bridge decks, marine structures, and any construction that requires the protection provided by impermeable concrete. It allows for design flexibility, resulting in reduced member size, increased span lengths, and improves overall structural economics which strengthen concrete. As a result of the preceding advantages, **MasterLife SF 3263** will improve performance in wet and dry shotcrete, prestressed, precast, and ready-mixed concrete applications. It is also recommended that **MasterLife SF 3263** be used in conjunction with a high range, water-reducing admixture, such as **MasterPolyheed**, **MasterGlenium** or **MasterEase** admixtures for maximum workability while maintaining a low water- cementitious ratio.

The superior distribution of the silica fume in slurry versus powder enables enhanced strength and durability to be achieved.

FEATURES AND BENEFITS

MasterLife SF 3263 aids in the production of concrete with the following special qualities:

- Dramatically improved durability
- Uniformly high compressive strength
- Abrasion and erosion protection
- Better flexural strengths at all ages
- Low permeability
- Enhanced health and safety and handling compared to silica fume in powdered form.

TYPICAL PROPERTIES*

Form	Liquid slurry
Colour	Grey
Chloride content ASTM C114-13	<0.1%
Bulk density ASTM C1240	1.1 - 1.4kg/m ³
pH	5-8

PACKAGING

MasterLife SF 3263 is supplied in 1,100-1,400 kg IBCs

COMPATIBILITY

MasterLife SF 3263 is compatible with all Portland Cements and in combination with Ground Granulated Blast Furnace Slag (GGBS) and Fly Ash (PFA).

RATE OF HARDENING

Setting time of concrete is influenced by the chemical and physical composition of the cement and/or cement type used to produce the concrete, temperature of the concrete, weather conditions, and the use of chemical admixtures. Trial mixes should be made with the job materials to determine the setting time of a specific mixture. **MasterLife SF 3263** silica fume will not initiate or promote corrosion of reinforcing steel embedded in concrete, prestressed concrete or concrete placed on galvanized steel floor and roof systems. Neither calcium chloride nor any chloride based ingredients are used in the manufacture of **MasterLife SF 3263** silica fume.

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DISPENSING

MasterLife SF 3263 is batched at the ready-mix plant in a manner similar to other admixtures.

Note: For directions on the proper use of **MasterLife SF 3263** please contact your local Master Builders Solutions Technical Sales Representative.

DOSAGE

MasterLife SF 3263 is recommended for use at an addition rate of 5 to 20% by weight of cement, depending on the amount of strength increase or impermeability desired. The exact amount for strength or durability requirements should be determined by trial batches using project materials.

PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the Master Builders Solutions Material Safety Data Sheet (MSDS) from our office or our website.

STORAGE & SHELF LIFE

MasterLife SF 3263 can be kept for 3 months. Whilst MasterLife SF 3263 is an exceptionally stable silica fume suspension it is recommended that daily circulation of the material is carried out to avoid segregation.

Typically the product is stable without separation for up to two weeks without circulation but this is subject to storage conditions. Shaded storage is recommended.

NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local Master Builders Solutions representative.

Master Builders Solutions reserves the right to have the true cause of any difficulty determined by accepted test methods.

QUALITY AND CARE

All products manufactured by Master Builders Solutions Egypt, or imported from Master Builders Solutions affiliate companies world-wide, are manufactured to procedures certified to conform to the quality, environment, health safety management systems described in the ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007 standards.

* Properties listed are based on laboratory controlled tests.

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