

DYNAMON SX 542M

Modified acrylic super-plasticiser for concrete characterised by low water/cement ratio, high mechanical strength and long slump retention

DESCRIPTION

Dynamon SX542M is a chloride-free Super plasticising admixture based on a modified acrylic polymer.

WHERE TO USE

Thanks to its high workability (S4 or S5 consistency class according to EN 206-1), concrete made with Dynamon SX542M is easy to lay while fresh and offers very high mechanical performance when hardened.

Dynamon SX542M is an admixture with superior performance compared with conventional naphthalene sulfonate or melamine sulfonate super-plasticisers and first-generation acrylic admixture regarding their capacity to reduce the amount of water and their workability.

Dynamon SX542M is particularly suitable for applications where the amount of water must be drastically reduced combined with an acceleration in strength after short curing times and long workability times for various consistency classes.

Its performance also makes it particularly suitable for self-compacting concrete, in that Dynamon SX542M guarantees high fluidity in cementitious conglomerates. When producing self-compacting concrete, the use of Dynamon SX542M must be combined with Viscostar 3K IN admixture which is used to modify viscosity, to avoid the risk of segregation and to guarantee that the mix is

homogenous, even with very high slump-flow.

Dynamon SX542M enhanced ready mixed concrete has the following properties:

- high mechanical performance with long maintenance of consistency class;
- waterproof and durable structures, according to the exposure classes provided by the EN 206-1 standard;
- with concrete nominal strength class Rck higher than 40 N/mm²;
- self-compacting. Thanks to its properties of free flow and resistance to segregation, when Dynamon SX542M is used in combination with Viscostar 3K IN admixture is to modify viscosity, self-compacting concrete which may be laid without vibrating and with high pouring speeds may be produced.

HOW TO USE

Dynamon SX542M develops its maximum dispersion action when it is added after all the other components in the mix (cement, aggregates, minerals or fillers and at least 80% of the mixing water).



TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Appearance:	liquid
Colour:	amber
pH:	7.0 ± 1
Density according to ISO 758 (g/m ³):	1.100 ± 0.022 at +25°C
Classification according to UNI EN 934-2	set retarding, high range water-reducing, super plasticizer, tables 11.1 and 11.2
Classification according to IS 9103-1999	superplasticizer, Water reducing, retarding clause 3.7
Classification according to ASTM C494	type G
Water-soluble chloride content according to EN 480-10 (%):	< 0.1 (absent according to EN 934-2)

COMPATIBILITY WITH OTHER PRODUCTS

Dynamon SX542M admixture is compatible with other products used to manufacture special concrete, and especially with:

- Hardening accelerator admixtures from Mapefast range to reach very high strength values after short curing cycles;
- Viscostar 3K IN viscosity modifiers to make self-compacting concrete;
- Mapetard range to produce concrete with very long retention of workability and controlled setting time.
- Mapeplast SF admixture in powder form, made from micro-silica to produce “top quality”, high-strength concrete with good waterproofing and durability properties;
- Expancrete expansive admixture, to produce compensated-shrinkage concrete;
- Fly-Ash to produce conventional self-compacting concrete;

- Lime and other types of fillers for self-compacting concrete and all other types of concrete which require the addition of this component;
- Mapeform ECO and DMA stripping agents used to strip form-work from concrete;
- Mapecure range curing agents to protect concrete structures without form-work against quick evaporation of the mixing water (floors).

Refer to the MAPEI Technical Assistance Department for advice when producing concrete resistant to freeze/thaw cycles, to assess the most suitable aerating agent according to the type of cement used.

CONSUMPTION

Dosage by weight:

- from 0.3 to 1.5 % per 100 kg of cement;
- for self-compacting concrete - from 0.5 to 1.7 % per 100 kg of fine particles (max 0.1 mm diameter).

Different dosages from those suggested must be previously tested through concrete trials in addition to consulting Mapei Technical Services Department.

PACKAGING

Dynamon SX542M is available in 250 kg drums and in IBC/Bulk.

STORAGE

Dynamon SX542M can be stored for 12 months in sealed containers, protect from frost.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Dynamon SX542 is not considered dangerous according to the current regulations regarding the classification of mixtures. It is however recommended to use gloves, eyes protection and take the usual precaution taken when handling chemical products.

For further and complete information about a safety use of our product please refer to our latest version of the Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

All relevant references for the product are available upon request and from www.mapei.in and www.mapei.com



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