

Dynamon SX 32

Superplasticizer for concrete with low loss of workability and high reduction of mixing water

DESCRIPTION

Dynamon SX 32 is a liquid superplasticizing admixture for quality concrete (waterproof, durable, and with high mechanical strength) with high retention of workability.

Dynamon SX 32 is a completely formaldehyde-free admixture for concrete based on non-sulphonated acrylic polymers.

WHERE TO USE

Because of its high workability (consistency classes S4 or S5 according to EN 206-1) and reduced amount of mixing water, concrete prepared with **Dynamon SX 32** is easy to place in the fresh state and has high mechanical strength when hardened.

Dynamon SX 32 is especially recommended for all applications which require high retention of workability (long transit time and/or hot weather).

Dynamon SX 32 is mainly used for:

- waterproof and durable concrete with high and very high compressive strength with exposure class in compliance with EN 206-1;
- ready-mixed concrete with high mechanical performance and high retention of workability in hot weather and/or over long transit time;
- pumped concrete.

Some application examples

Because of its high reduction of mixing water and its ability to extend the initial workability of the mix over long intervals, **Dynamon SX 32** is a superplasticizer especially recommended for:

- ready-mixed concrete for waterproof structures in the presence of aggressive agents, including chemicals (sewage treatment tanks, digesters, reservoirs, canals, tunnels, etc.);
- ready-mixed concrete with high retention of

workability (for transport times over 1 hour and temperatures above +25°C when the project calls for S4 or S5 consistency class in compliance with EN 206-1);

- high quality ready-mixed concrete;
- pumped concrete.

TECHNICAL CHARACTERISTICS

Dynamon SX 32 is a totally formaldehyde-free, water solution of acrylic polymers that can effectively disperse cement granules with secondary components that significantly improve the cohesion and the pumpability of concrete.

APPLICATION PROCEDURE

Dynamon SX 32 develops its maximum scattering action if it is added in the mix after all the other components (cement, aggregates, added minerals or filler material and at least 80% of the water required for mixing).

COMPATIBILITY WITH OTHER PRODUCTS

Dynamon SX 32 admixture is compatible with other products for producing special concrete, especially with:

- hardening accelerating admixtures chloride-free from the **Mapefast** range for reaching very high mechanical strengths at early ages;
- aerating agents from the **Mapeair** range used in the production of concrete resistant to freeze/thaw cycles;
- **Mapeplast SF**, micro-silica powder admixture for producing top quality concrete with strength, durability and impermeability;
- **Expancrete** expanding agent for the production of shrinkage compensated concrete;
- fly-ash and silica fume for the production of concrete with artificial pozzolan;

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Appearance:	liquid
Colour:	brown
Density according to ISO 758 (g/cm ³):	1.05 ± 0.02 at +20°C
Main action:	increased and extended workability and/or reduction of water content
Classification according to EN 934-2:	set retarding, high range water reducing, superplasticizer, tables 11.1 and 11.2
Classification according to ASTM C494:	type G
Classification according to ASTM C1017:	type II
Chlorides soluble in water according to EN 480-10 (%):	< 0.1 (absent according to EN 934-2)
Alkali content (Na ₂ O equivalent) according to EN 480-12 (%):	< 3.5
pH according to ISO 4316:	6.5 ± 1

- **Form-Release Agents** from the **Mapeform Eco** and **DMA** ranges used to strip formwork from concrete;
- curing agents from the **Mapecure** range to protect concrete structures without form-work against quick evaporation of the mixing water (floors).

CONSUMPTION

Dose by volume:

from 0.5 to 1.5 l for every 100 kg of cement. Different dosages from those suggested must be previously tested through concrete trials, in addition to consulting MAPEI Technical Services Department.

PACKAGING

Dynamon SX 32 is available in bulk, 200 l drums and in 1000 l tanks.

STORAGE

Dynamon SX 32 can be stored for 12 months, in closed containers and protect from frost. Exposure to direct sunlight can provoke variations of the colour tone without altering in any way the performance of the product.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Dynamon SX 32 is not considered dangerous according to the European regulation regarding the classification of mixtures. It is recommended to wear gloves and goggles and to take the usual precautions taken for the handling of chemicals.

For further and complete information about the safe use of our product please refer to the latest version of our 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.com



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