

Dynamon SR31

Superplasticizer based on modified acrylic polymers for concrete with low water/cement ratio and long slump retention

DESCRIPTION OF PRODUCT

Dynamon SR31 is an admixture based on modified acrylic polymers specially designed for ready-mixed concrete.

WHERE TO USE

Concretes manufactured with **Dynamon SR31** have a high level of workability (consistency class S4 or S5, according to EN 206-1), and are consequently easy to apply when fresh. At the same time they offer excellent mechanical performance when hardened.

Dynamon SR31 is especially suitable for ready-mixed concrete and where there is the need for strong water retention along with good development of early mechanical strength.

Furthermore **Dynamon SR31** guarantees concrete with good maintenance of initial slump in the different consistency classes even with high ambient temperature.

Its performance make it particularly suited to the manufacture of self-compacting concretes. It is necessary to use **Viscofluid SCC/10** or **Viscostar 3K**, viscosity modifying admixtures with **Dynamon SR31**, in order to avoid the risk of segregation and ensure the mixture homogeneity even with very high slump-flow.

The main applications of **Dynamon SR31** are the production of ready-mixed concretes:

- with high mechanical strength and long slump retention;
- designed for waterproof and long lasting works in exposure classes provided for in the EN 206-1 standard;
- self-compacting and long slump retention.

TECHNICAL CHARACTERISTICS

Dynamon SR31 consists of acrylic polymers in water (with no formaldehyde). The polymers efficiently disperse the cement grains and facilitate slow development of the first products of cement hydration.

APPLICATION PROCEDURE

Dynamon SR31 develops maximum dispersing action when added after the other mixture ingredients (cement, aggregates, mineral addition or filler and at least 80% of the mixing water) and before **Viscofluid SCC/10** or **Viscostar 3K**.

COMPATIBILITY WITH OTHER PRODUCTS

Dynamon SR31 is compatible with other products for preparing special concretes, especially with:

- **Viscofluid SCC/10** or **Viscostar 3K**, viscosity modifying admixtures for manufacturing self-compacting concretes;
- **Mapeplast SF**, silica fume based powder admixture for manufacturing “top-quality” concrete (strength, impermeability, durability);
- **Expancrete**, expansive agent for manufacturing shrinkage compensated concrete;

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	liquid
Colour:	brown
Density according to ISO 758 (g/cm³):	1.06 ± 0.02 at +20°C
Main action:	increase workability and/or reduction of mixing water, long slump retention
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
Chloride content according to EN 480-10 (%):	< 0.1 (absent according to EN 934-2)
Alkali content (Na₂O equivalent) according to EN 480-12 (%):	< 2.5
pH content according to ISO 4316:	6.5 ± 1.0

- different types of limestone fillers for manufacturing self-compacting concrete and any other type of concrete that requires these fillers;
- **DMA Form-Release** agents and **Mapiform Eco** for stripping formwork from concrete;
- **Mapecure** range curing compounds for protection from rapid evaporation of water form concrete without formwork (flooring).

DOSAGE

Dosage by volume:

for traditional mixtures – from 0.7 to 1.7 l per 100 kg of cement.
 For self-compacting concrete – from 0.7 to 1.7 l 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 SR31 is available in bulk, 200 l drums, 1000 l tanks.

STORAGE

Store **Dynamon SR31** for 12 months in sealed containers, protect from frost. Exposure to direct sunlight can provoke variations in colour tone without altering in any way the performances of the product.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Dynamon SR31 is not considered dangerous

according to the current 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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