

# Dynamon SR1

## Superplasticizer based on acrylic polymer for ready-mixed concrete

### DESCRIPTION OF PRODUCT

**Dynamon SR** is an admixture based on acrylic polymer specially designed for the ready-mixed concrete industry, belonging to the MAPEI **Dynamon SR** system.

### WHERE TO USE

Concretes manufactured with **Dynamon SR1** 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 SR1** is especially suitable for ready-mixed concrete and wherever there is the need for strong water reduction, along with prolonged workability in different consistency classes.

Its performance makes it particularly suitable for manufacturing self-compacting concretes as **Dynamon SR1** ensures high workability.

**Dynamon SR1** 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 norm;

- with characteristic strength class ( $R_{ck}$ ) in the range 25-40 N/mm<sup>2</sup>;
- self-compacting concretes, combined with **Viscofluid SCC/10** or **Viscostar 3K** viscosity modifying admixtures. **Dynamon SR1** is suitable for manufacturing self-compacting concretes to accelerate the casting procedure since they can be placed without vibration.

### TECHNICAL CHARACTERISTICS

**Dynamon SR1** consists of a water solution acrylic polymers (with no formaldehyde). The polymers efficiently disperse the cement grains and facilitate a slow development of the initial products during the cement hydration.

### APPLICATION PROCEDURE

**Dynamon SR1** 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 SR1** admixture is compatible with other

TECHNICAL DATA (typical values)	
<b>PRODUCT IDENTITY</b>	
<b>Consistency:</b>	liquid
<b>Colour:</b>	amber
<b>Density according to ISO 758 (g/m<sup>3</sup>):</b>	1.06 ± 0.02 at +20°C
<b>Main action:</b>	increase workability and/or reduction of mixing water and slump retention over long periods
<b>Classification according to EN 934-2:</b>	high range water reducing, superplasticizer, tables 3.1 and 3.2
<b>Classification according to ASTM C494:</b>	type F
<b>Classification according to ASTM C1017:</b>	type I
<b>Chlorides soluble in water according to EN 480-10 (%):</b>	< 0.1 (absent according to EN 934-2)
<b>Alkali content (Na<sub>2</sub>O equivalent) according to EN 480-12 (%):</b>	< 2

products for preparing special concretes, especially with:

- **Viscofluid SCC/10** or **Viscostar 3K**, viscosity modifying admixtures for manufacturing self-compacting concretes;
- hardening accelerating chloride-free admixtures from the **Mapecast** range for reaching very high mechanical strengths at early ages;
- **Mapeplast SF**, silica fume based powder admixture for manufacturing “top-quality” concrete (strength, impermeability, durability);
- **Expacrete**, expansive agent for manufacturing shrinkage compensated concrete;
- fly ash for manufacturing standard and self-compacting concrete;
- different types of limestone fillers for manufacturing self-compacting concrete and any other type of concrete that requires these fillers;

- air entraining agents from the **Mapecair AE** range used in the production of concrete resistant to freeze/thaw cycles;
- form-release agents from the **Mapecform 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).

## DOSAGE

### Dosage by volume:

from 0.8 to 1.5 l per 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 SR1** is available in bulk, 200 l drums, 1000 l tanks.

## STORAGE

**Dynamon SR1** may be stored 12 months in sealed containers, protect from frost.

Exposure to direct sunlight can provoke variations of the colour tone without altering the performance of the product.

**SAFETY INSTRUCTIONS  
FOR THE PREPARATION  
AND APPLICATION**

**Dynamon SR1** 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](http://www.mapei.com)**

**All relevant references  
for the product are available  
upon request and from  
[www.mapei.com](http://www.mapei.com)**

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