

# Dynamon SX 34

## Superplasticizer for ready mixed concrete with high reduction of mixing water

### DESCRIPTION

**Dynamon SX 34** is a liquid superplasticizing admixture for high quality concrete (waterproof and durable, with high mechanical strength) and retention of workability.

**Dynamon SX 34** 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 34** is easy to place in the fresh state and has high mechanical strength when hardened.

**Dynamon SX 34** is especially recommended for all applications which require a great reduction of mixing water.

**Dynamon SX 34** is mainly used for:

- high mechanical resistance to compression, waterproof and durable concrete with exposure class in compliance with EN 206-1;
- ready-mix concrete with high mechanical performance and high retention of workability;
- pumpable concrete.

### Some application examples

Because of its high reduction of mixing water, and its ability to maintain workability of the mix, **Dynamon SX 34** is a superplasticizer especially recommended for:

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

when the project calls for S4 or S5 consistency class in compliance with EN 206-1;

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

### TECHNICAL CHARACTERISTICS

**Dynamon SX 34** 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 pumpability of concrete.

### APPLICATION PROCEDURE

**Dynamon SX 34** develops maximum dispersing action when added to the concrete after the other components (cement, aggregates, minerals or fillers and at least 80% of mixing water).

### COMPATIBILITY WITH OTHER PRODUCTS

**Dynamon SX 34** admixture is compatible with other MAPEI products for producing special concrete, especially with:

- chloride-free hardening accelerating admixtures from the **Mapefast** range for reaching very high mechanical strengths at early ages;
- air entraining admixtures from the **Mapeair AE** range to produce concrete which is resistant to freeze/thaw cycles;
- **Mapeplast SF**, silica fume based powder admixture for manufacturing top-quality concrete (strength, impermeability, durability);
- **Expacrete** and **Mapecure SRA 25** expansive and shrinkage-reduction admixture, to produce compensated-shrinkage concrete or with no shrinkage;

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	liquid
Colour:	amber
Density according to ISO 758 (g/cm <sup>3</sup> ):	1.06 ± 0.02 at +20°C
Principal action:	increased and extended workability and/or reduction of water content
Classification according to EN 934-2:	set retarding, high range water reducing, water retaining superplasticizer, tables 3.1-3.2
Chlorides soluble in water according to EN 480-10 (%):	< 0.1 (absent according to EN 934-2)
Alkali content (Na <sub>2</sub> O equivalent) according to EN 480-12 (%):	< 2
pH content according to ISO 4316:	6.5 ± 1

- form-release agents **DMA** and **Mapeform Eco** for releasing concrete from formworks;
- **Mapecure** curing emulsions to protect form-released concrete structures from rapid water evaporation.

#### 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 34** is available in bulk, 200 l drums and in 1000 l tanks.

#### STORAGE

**Dynamon SX 34** can be stored for 12 months in closed containers protected from frost. Exposure to direct sunlight can provoke variations of the colour tone without altering in any way the performances of the product.

#### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Dynamon SX 34** 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 for handling 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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