

Mapequick SA

Hardening accelerator for concrete

AREA OF USE

Mapequick SA is a chloride free accelerator based on calcium nitrate, used to promote rapid setting of concrete and mortar. **Mapequick SA** can be used with all types of concrete where faster setting times are required. Some special areas of use are:

Concrete flooring

Mapequick SA is ideal for concrete flooring. The formulation of the concrete itself is also very important and Rescon Mapei's technical service department can provide assistance if required. **Mapequick SA** can be used with all water/ cement ratios intended for use as concrete flooring.

Winter casting

Mapequick SA can also be used during the winter time where the early onset of temperature development is used to counteract the retarding effect of lower temperatures and prevent freezing of the concrete before adequate strength has been attained. The use of **Mapequick SA** however is not a substitute for other measures which may be necessary e.g. increasing the temperature of the concrete, using a rapid hardening cement, or covering/heating.

Production of precast elements

Use of **Mapequick SA** in precast concrete accelerates the hardening process and allows for early form stripping.

PROPERTIES

The addition of **Mapequick SA** has many favourable effects on concrete:

- Faster setting time
- Reduced time to plastering/finishing
- Reduced evaporation
- Activates concrete which is retarded because of extended transportation/ high temperatures
- Lower maximum temperature of the concrete
- Negligible effect on initial strength
- Increased ultimate strength

DOSAGE

Normal dosage of **Mapequick SA** is from 0.5 to 2.0% of cement by weight. Larger quantities may be used but do not necessarily give a greater effect. **Mapequick SA** is usually added directly into the mixer at site. The concrete should be mixed for 5 minutes, plus 1 minute per m³. For shorter transportation and fast deliveries it is also possible to add **Mapequick SA** into the mixer, but this is only recommended when fast, stable deliveries can be guaranteed.

RECOMMENDATIONS

Different cement types react differently when combined with **Mapequick SA**. **Mapequick SA** has the greatest effect on concrete containing cement types with low alkali content and high C2S content. Experiments have also shown that the development in strength after 28 days increases for these types of cement.

PACKAGING

Mapequick SA is delivered in 25 litre cans, 200 litre drums, 1000 litre plastic containers and in bulk. The product must be stored frost free, and has a minimum shelf life of 1 year in unopened original packaging.

SAFETY INSTRUCTIONS

For health, safety and environmental information, see separate HSE data sheet at www.resconmapei.no.



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WARNING

The technical recommendations and details given in this description represent our present knowledge and experience of the products. All the above information must nevertheless be treated as advisory and subject to due consideration. Any person using the product must satisfy himself in advance that the product is suitable for the intended use. Users will themselves be responsible if the product is used for other than the recommended purposes or is used incorrectly.

All deliveries from Rescon Mapei AS are made in accordance with the sale and delivery conditions applicable at the time, and these conditions are taken to be accepted on placement of an order.

TECHNICAL DATA	Mapequick SA is approved as a hardening promoting admixture in accordance with NS-EN 934-2 by Vattenfall Utveckling, Certification number: 98509	
Product specifications:		
Type:	Liquid	
Colour:	Transparent	
Viscosity:	Low viscosity; < 15mPa · S	
Solids content, (%):	50.0 ± 2.5	
Density, (g/cm ³):	1,48 ± 0,03	
pH:	5 ± 1	
Chloride content, (%):	< 0.01	
Alkali content (Na ₂ O - equivalent), (%):	< 0.05	
Properties of concrete with Mapequick SA:		
Standard cement, kg/m ³ CEM I-42,5R (Norcem Standard)	350	350
Admixture added (% of cement by weight):	0	2.0
Water/cement ratio (w/c):	0.51	0.51
Consistency (mm):	75	70
Air volume (%):	2.5	2.3
Time to setting:	5hr.00min.	3hr.50min.
Compressive strength (N/mm ²):		
After 24 hours	19	19
After 7 days	36	38
After 28 days	44	47