



Mapetop S AR3

Pre-blended, dry shake hardener for concrete floors made of special aggregates based on corundum, Portland cement and special additives



WHERE TO USE

Mapetop S AR3 has a high mechanical strength and resistance to abrasion, therefore it is particularly suitable for creating wear layers on concrete floors in industrial and commercial environments with intense goods traffic.

Application examples

- New concrete floors in industrial environments (e.g. the automobile industry).
- New concrete floors in industrial warehouses and storage areas for goods (logistics stores, stockrooms, transport companies, forwarding agents).
- Loading and unloading platforms and access ramps for car parks and garages in internal and external areas.
- Floors in airport and customs hangars.
- Concrete floors in stock rooms and workshops.
- New concrete floors in commercial environments (shopping centres, shops, showrooms).

TECHNICAL CHARACTERISTICS

Mapetop S AR3 is supplied ready to use and is a powder mixture of a special high hardness aggregates based on corundum, Portland cement and special additives according to a formula developed in the MAPEI R&D laboratories.

Due to its high mechanical strength and resistance to abrasion, **Mapetop S AR3** is a suitable product to create monolithic industrial concrete floors subjected to intense traffic.

Mapetop S AR3 also has excellent resistance to atmospheric agents, freeze/thaw cycles and de-icing salts.

Mapetop S AR3 meets the requirements defined in EN 13813 "Screed material and floor screeds - Screed material - Properties and requirements" (Appendix ZA.1, table ZA 1.1).

Screeds and structural dressing materials, such as those which help increase the load-bearing capacity of floors, are not included in this standard.

APPLICATION PROCEDURE

Sprinkling method

Mapetop S AR3 must always be sprinkled on the surface of fresh concrete before it starts to set, and may be carried out either manually or mechanically. When applied manually it must be applied in two layers, while for mechanical application it may be applied in one single layer.

Manual application

For the first layer, sprinkle **Mapetop S AR3** at a rate of between 2.5 and 5.5 kg/m².

TECHNICAL DATA (typical values)		
dry shake hardener for concrete floorings in compliance with EN 13813 CT - C70 - F7 - AR3 - A1 _{fl}		
PRODUCT IDENTITY		
Consistency:	powder	
Colour:	grey - other colours upon request	
Bulk density (kg/m ³):	1500	
Maximum size of aggregate (mm):	2.5	
Dry solids content (%):	100	
APPLICATION DATA (at +20°C - 50% R.H.)		
Colour of the mix:	grey - other colours upon request	
Density of mix (kg/m ³):	2,400	
pH of mix:	>12.5	
Application temperature range:	from +5°C to +35°C	
FINAL PERFORMANCE (10.5% mixing water)		
Performance characteristic	Test method	Performance of product
Compressive strength (N/mm ²):	EN 13892-2	50 (after 3 days) 60 (after 7 days) 70 (after 28 days)
Flexural strength (N/mm ²):	EN 13892-2	7 (after 3 days) 8 (after 7 days) 9 (after 28 days)
Bond strength on concrete (substrate in MC 0.40 - water/cement ratio = 0.40) according to EN 1766 (N/mm ²):	EN 1542	≥ 2 (after 28 days)
Abrasion resistance Böhme:	EN 13892-3	Class 3
Reaction to fire:	EN 13501	Euroclass A1 _{fl}

As soon as the **Mapetop S AR3** has absorbed the moisture in the concrete slab, it must be blended in and smoothed over by power trowelling.

As soon as this phase has been completed, sprinkle a second even layer of **Mapetop S AR3** over the entire surface. The amount of product to be used for this layer must also be between 2.5 and 5.5 kg/m².

Once **Mapetop S AR3** has absorbed the moisture in the concrete slab, it must be blended in and smoothed over by power trowelling.

Mechanical application

If the mechanical application method is used, **Mapetop S AR3** must be sprinkled on the surface in an even, single layer at a rate of between 5 and 8 kg/m².

CONSUMPTION

Manual application: from 2.5 to 5.5 kg/m² per layer.

Mechanical application: from 5 to 8 kg/m²

PACKAGING

Mapetop S AR3 is supplied in 25 kg bags.

STORAGE

Mapetop S AR3 remains stable for 12 months if stored in a dry, covered area. The product complies with the conditions of Annex XVII to Regulation (EC) N° 1907/2006 (REACH) - All. XVII, item 47.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapetop S AR3 contains cement that when in contact with sweat or other body

fluids causes irritant alkaline reactions and allergic reactions to those predisposed.

It can cause damage to eyes.

It is recommended to use protective gloves and goggles and to take the usual precautions for handling chemicals.

If the product comes in contact with the eyes or skin, wash immediately with plenty of water and seek medical attention.

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**

**Mapetop
S AR3**



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