MAPETOP N AR6

Pre-mixed, mineral dry shake surface hardener for concrete floors

EN 13813

C70-F7
A6-A1fl

DESCRIPTION

Mapetop N AR6 is a pre-mixed mineral dry-shake surface hardener which contains well graded quartz aggregate, Portland cement and special additives according to a formula developed in the MAPEI R&D laboratories.

TECHNICAL CHARACTERISTICS

Thanks to its high mechanical strength and resistance to abrasion, **Mapetop N AR6** is a suitable product to create wear resistant surfaces for concrete floors subjected to intense vehicular and pedestrian traffic.
Mapetop N AR6 also has excellent resistance to weathering, freeze/thaw cycles and de-icing salts.
Mapetop N AR6 complies with the requirements according to EN 13813 "Screed material and floor screeds - Screed material - Properties and requirements", which defines the requirements to be applied to materials for screeds used in the construction of internal floors.

ADVANTAGES

- easy to apply
- available in various colours
- it improves the wear resistance
- it helps to increase the durability of the concrete floors
- sustainability: it can contribute to obtain LEED credits. EPD (Environmental Product Declaration) compliant.

WHERE TO USE

Mapetop N AR6 is applied by sprinkling method to create the wear resistant surface of new internal and external concrete floors, even subject to intense vehicular or pedestrian traffic, in industrial or commercial environments such as:

- automotive and mechanical industries in general;
- manufacturing industries in general;
- warehouses, couriers, freight forwarders, loading/unloading platforms;
- car parks, external areas;
- airport hangars, interports, large logistics warehouses;

- shopping centres, shops, showrooms;
- concrete floors in environments subject to intense vehicular and pedestrian traffic in general, etc.

APPLICATION PROCEDURE

Sprinkling method

Mapetop N AR6 is sprinkled onto the fresh concrete surface by manually or mechanically way.
When applied manually, it must be spread in two layers, while for mechanical application it may be applied in one single layer.

Manual application

For the first layer, sprinkle **Mapetop N AR6** at a rate of 1.5 to 2.5 kg/m².
As soon as **Mapetop N AR6** has absorbed the bleeding moisture of the concrete slab, it must be worked into the concrete surface by power trowelling.
Once this phase has been completed, immediately sprinkle a second even layer of **Mapetop N AR6** over the entire surface. The amount of product to be used for this layer must also be between 1.5 and 2.5 kg/m².
As soon as **Mapetop N AR6** has still absorbed the bleeding moisture, it must be worked into the surface and smoothed over by power trowelling.

Mechanical application

If the mechanical application method is used, **Mapetop N AR6** must be sprinkled on the surface in an even, single layer at a rate of 3 to 5 kg/m².
As soon as **Mapetop N AR6** has absorbed the bleeding moisture of the concrete slab, it must be worked into the surface and smoothed over by power trowelling.

CONSUMPTION

Manual application: from 1.5 to 2.5 kg/m² per layer.
Mechanical application: from 3 to 5 kg/m².

PACKAGING

Mapetop N AR6 is supplied in 25 kg bags.

STORAGE

12 months stored in a dry, covered area.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.
PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY	
Consistency:	powder
Colour:	light grey, anthracite, green, brown, red
Bulk density:	1,400 kg/m³
Maximum size of aggregate:	2.5 mm
Dry solids content:	100 %
Chloride ions content – minimum requirements ≤ 0.05% according to EN 1015-17:	≤ 0.05 %

APPLICATION DATA (at +23°C - 50% R.H.)	
Colour of mix:	light grey, anthracite, green, brown, red
Density of mix:	2,200 kg/m³

pH of mix:	> 12.5
Application temperature range:	from +5°C to +35°C

FINAL PERFORMANCE (10.5% mixing water) (at +23°C – 50% R.H.)	
Compressive strength (EN 13892-2):	30 N/mm² (after 1 day)
Flexural strength (EN 13892-2):	6 N/mm² (after 1 day)
Depth of penetration of water under pressure (EN 12390-8):	< 5 mm

Essential characteristics	Test method	Requirements according to EN 13813 for cementitious screed	Typical values
Compressive strength :	EN 13892-2	From C5 to C80	C70
Flexural strength :	EN 13892-2	From F5 to F50	F7
Bond strength:	EN 13892-8	≥ B1.5	B ≥2.0
Böhme abrasion resistance:	EN 13892-3	from A1.5 to A22	A6
Permeability to water:	EN 1062-3	Declared value	w < 0.1 kg/(m²·h$^{0.5}$) (Class III)
Reaction to fire:	EN 13501	Declared value	$A1_{FL}$

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

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation.
The most up-to-date TDS can be downloaded from our website, www.mapei.com.
ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

TECHNICAL SPECIFICATIONS

Supply and installation of premixed mineral dry-shake surface hardener containing well graded quartz aggregate, Portland cement and special additives (such as **Mapetop N AR6** from MAPEI S.p.A.) to create the wear resistant surface of internal and external industrial or commercial concrete floors subject to severe vehicular and pedestrian traffic. The product must be sprinkled on the fresh concrete floor surface, by manual or mechanical way, then worked into the surface and smoothed by power trowelling.
The material must have the following characteristics:

Colour of the mix:	light grey, anthracite, green, brown, red
Density of the mix:	2,200 kg/m³
pH of the mix:	> 12.5
Application temperature range:	from +5°C to +35°C
Compressive strength (EN 13892-2):	30 N/mm² (after 1 day) 70 N/mm² (after 28 days)

Flexural strength (EN 13892-2):	6 N/mm² (after 1 day) 8 N/mm² (after 28 days)
Bond strength (EN 13892-8):	≥ 2 N/mm² (after 28 days)
Depth of penetration of water under pressure (EN 12390-8):	< 5 mm
Permeability to water (EN 1062-3):	< 0.1 kg/m²·$h^{0.5}$ (Class III)
Böhme abrasion resistance (EN 13892-3):	6 cm^3/50 cm^2
Reaction to fire class (EN 13501):	$A1_{FL}$
Contributes to obtain LEED credits. EPD (Environmental Product Declaration) compliant.	

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