

Mapetop SP

Ready-to-use dry-shake surface hardener

WHERE TO USE

Mapetop SP is a ready-to-use dry-shake surface hardener for producing abrasion-resistant concrete floor.

Mapetop SP is based on selected Portland cement and mineral aggregates with a very good particle size distribution and special additives as well as alkali-resistant and UV-resistant pigments.

Some application examples

Mapetop SP is particularly useful for achieving abrasion-resistant concrete floors and industrial screeds for internal and external use, in moderate to heavy-duty areas:

- Maintenance facilities
- Parking garages
- Parking decks
- Warehouses
- Loading ramps
- Industrial floors

TECHNICAL CHARACTERISTICS

The strong stresses which occur in areas such as driveways, shipping and receiving warehouses and storehouses may cause, in normal concrete floors and industrial floors, abrasion, dust, detachment and other mechanical damages.

Mapetop SP is characterized by high abrasion resistance, high compressive and flexural strength. A dust-proof, easy to care surface is obtained with **Mapetop SP** and, upon request, even a coloured abrasion-resistant surface.

RECOMMENDATIONS

- Do not use **Mapetop SP** on floor surfaces exposed to acids and other materials which attack cement.
- After application, **Mapetop SP** has to be protected from rapid hydration e.g. use polythene sheet covering.
- **Mapetop SP** must be protected from extreme weather conditions e.g. strong sunlight, wind and rain. Use polythene sheeting.
- When using coloured **Mapetop SP** make sure to apply at least 5-11 kg/m² of material.
- Colour shade variation of the finished floor surface can occur so care must be taken on the dosage of colour with the consistency of the concrete.

DIRECTION FOR USE

General

Mapetop SP can be used both on fresh concrete (e.g. new constructions and monolithic concrete) and on fresh screeds that have subsequently been installed.

Preparing the concrete and the screed

Future mechanical stress must be taken into consideration when installing concrete surfaces.

The w/c ratio has to be less than 0.6; the aggregate used has to be properly sized and graded. The cement content must be at least 300 kg/m³ for concrete and 400 kg/m³ for screeds.

Make sure that the existing concrete substrate has been correctly treated beforehand before installing the screed.

Seal any cracks in the screed or existing concrete using Mapei **Eporip** or **Epojet LV**.

The substrate must be installed according to the directions of the concrete technique by means of vibrating or aluminium fillets.

Do not add water once the mix has begun to set.

Notes:

- After 28 days the compressive strength of the concrete must be at least 30 N/mm²;
- The necessary additives for the concrete substrate must be decided beforehand with a **MAPEI** technician;
- Do not use additives containing chlorides;
- During the installation, protect the floor from severe weather conditions (sunlight, wind and rain);
- During the construction of large areas care must be taken in the planning and organisation of the work;
- Spraying water during pre-levelling or smoothing may cause colour variation and cracks due to shrinkage.

PREPARATION

Pre-levelling of the concrete surface

Immediately after the concrete has been placed, the surface can be pre-levelled with a long wooden trowel before the appearance of bleed water.

Application of Mapetop SP

Mapetop SP is manually broadcasted and must be applied only after bleeding is re-absorbed (disappear). The concrete must be still fresh.

It is important that the minimum consumption is maintained overall.

Leave the applied dry shake between 10 to 30 min. to be moistened till its colour gets dark. Immediately afterwards, amalgamate the materials homogeneously with a power floating machine. The waiting time depends on the temperature and on the quantity of the dry shake.

Further finishing of Mapetop SP

If a particularly smooth and compact surface is requested, wait a further 2 hours and then finish once more with a power float.

Sections that are difficult to reach have to be manually finished with a steel trowel.

Curing

Special care must be taken for the concrete curing, anti-evaporation agent **Mapecure SP** or a polythene sheeting should be used, to achieve a high quality finished surface.

Prevent other trade contamination or mechanical damage to newly applied surface.

Creating the joints

Movement joints in the substrate should be continued up to the surface covered by the dry shake.

Movement joints must be created to define surface areas not larger than 25 m².

These joints can be strengthened, if necessary, with steel profiles in order to avoid mechanical damage of the joint side.

After 28 days fill these joints with appropriate alkali resistant sealant.

Mapeflex PU50 SL or **Mapeflex PB27** are particularly suggested.

Cleaning

Tools can be cleaned with water before **Mapetop SP** dries.

After setting, the product can only be removed mechanically.

COVERAGE

Coverage ranges from 3-11 kg/m², can vary depending on the service conditions to which the floors will be exposed and on the required colours.

When using coloured **Mapetop SP** consider a coverage about 5-11 kg/m²

PACKING

25 kg paper per pallet
1,000 kg pallets (40 bags)

COLOURS

Standard: natural grey
On request: green, red, light grey

STORAGE

Mapetop SP can be stored 12 months in closed original packaging on a wooden base in a dry and sheltered place.

Do not use open or damaged bags.

Manufactured in compliance with the regulations of the 2003/53/EC Directive.

TECHNICAL DATA (typical values)

PRODUCT IDENTIFICATION

Type:	Ready-to-use powder	
Base:	Natural aggregates, Portland cement and additives	
Compressive and flexural strength carried out on 4x4x16 cm prisms (N/mm ²):	Flexural strength	Compressive strength
- after 3 days:	about 7	about 50
- after 7 days:	about 9	about 60
- after 28 days:	about 11	about 70
Pull-out strength (N/mm ²)	> 1.5	
Minimum working temperature (air and substrate):	+5°C	
Regulatory information:	The product contains cement. The product reacts alkaline with water.	
Disposal:	Mix the residual product with water and let it harden. The hardened product can be disposed as EWC 170101	
Hazard classification according to EC 1999/45:	Irritant Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packaging and Safety Data Sheet.	

SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

Mapetop SP contains cement that when in contact with sweat or other body fluids produces an irritant alkaline reaction and allergic reactions to those predisposed. Use protective gloves and goggles. For further information consult the Safety Data Sheet.

FOR PROFESSIONALS.

WARNING

N.B. Although the technical details and recommendations contained in this product report 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 applications: 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 of the product are available upon request

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