MAPEI

# Mapetop SP

## Ready-to-use, dry-shake, surface hardener

MapeiVietnam.com
Hotline: 0931 497 627

### WHERE TO USE

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

### Some application examples

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

- Maintainance facilities.
- Parking garages.
- Parking decks.
- Warehouses.
- Loading ramps.
- Industrial floors.

### TECHNICAL CHARACTERISTICS

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

**Mapetop SP** is characterized by excellent mechanical properties with high abrasion-resistance and compressive strength. It provides a dust-proof and easy-to-maintain surface which is also resistant to oils and greases. **Mapetop SP** is available in natural colour with light grey, red and green available on request.

### 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 drying e.g. use **Mapecure SP** curing compound or polythene sheet covering.
- When using coloured **Mapetop SP** make sure to apply at least 5-6 kg/m² of material.
- Colour shade variations of the finished floor surface may occur, particularly when applied on concrete of different batches.

### DIRECTIONS FOR USE

#### General

**Mapetop SP** can be used both on fresh concrete (e.g. new constructions and monolithic concrete) and on fresh screeds.

#### The base concrete or screed

The concrete or screed receiving the hardener shall be of grade 25 or higher, with suitable workability properties for placing, compacting and finishing to the desired surface profile, all in accordance with good concreting practice. Pay particular attention to corners and bay edges. The concrete shall exhibit minimal bleeding.

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

**Mapetop SP**

**Notes:**
- 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 organization of the work;
- Spraying water during pre-levelling or smoothing may increase colour variations and cause 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 the bleed water has been re-absorbed. The concrete must be still fresh.

It is important that at least the minimum consumption is maintained in all areas. Calculate and organise bags of **Mapetop SP** into separate lots for defined work areas according to the required dosage.

Apply **Mapetop SP** in 2 stages. First, broadcast 1/2 to 2/3 of the material and let the applied dry shake moisten till its colour gets dark. Immediately compact with a power floating machine to amalgamate it into the concrete. (The waiting time depends on the temperature and on the quantity of the dry shake.) Do not overwork the surface.
Then apply the remainder of the material, broadcasting in a direction perpendicular to the first application. When it has absorbed moisture from the substrate, immediately power float to finish.

### 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.
Take special care with areas that are difficult to reach, manually finishing with a steel trowel to ensure good compaction.

### Curing

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

Prevent contamination or mechanical damage to newly applied surfaces by other trades.

### Treatment of joints

Joints may be required as part of the design of the concrete floor. The types and locations of joints required shall be designed by the structural engineer. Movement joints shall be carried through to the surface and can be strengthened, if necessary, with steel profiles in order to avoid mechanical damage to the joint sides.

Crack-inducing joints (cut joints) are positioned to minimise random cracking of the base screed or concrete with particular attention paid to corners, turns and column locations. Joints are also cut to limit continuous floor surface areas to within about 25 m² in accordance with recommended good practice.

After 28 days, fill open joints with appropriate alkali-resistant sealants. **Mapeflex PU50 SL** or **Mapeflex PB27** are particularly recommended.

### Cleaning

Tools can be cleaned with water before **Mapetop SP** dries. After setting, the product can only be removed mechanically.

## COVERAGE

Apply **Mapetop SP** at the following rates depending on service conditions :

| | |
|---|---|
| Light duty | - 4 kg/m² |
| Medium duty | - 5 kg/m² |
| Heavy duty | - 6 kg/m² |

For coloured versions, apply at least 5 kg/m². A dosage of 6 kg/m² gives the best results.

## PACKING

25 kg bags.

## COLOURS

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

## STORAGE

**Mapetop SP** can be stored 12 months in unopened, original packaging on a wooden base in a dry and sheltered place. Do not use open or damaged bags.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Mapetop SP** contains cement that when in contact with sweat or other body fluids causes an irritant alkaline reaction and allergic reactions to those predisposed. During use, wear protective gloves and goggles and take the usual precautions for handling chemical products. In case of contact with 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 our latest version of the Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

## TECHNICAL DATA (typical values)

| | |
|---|---|
| **PRODUCT IDENTITY** | |
| **Type :** | ready-to-use powder |
| **Base :** | portland cement, selected natural aggregates and additives |
| **Colours :** | natural (dark grey, light grey, green and red on request) |
| **APPLICATION DATA** | |
| **Dosage ($kg/m^2$)**<br>- **Light duty**<br>- **Medium duty**<br>- **Heavy duty** | <br>4<br>5<br>6<br>(For coloured versions, apply at least 5-6 $kg/m^2$) |
| **Minimum working temperature (air and substrate)(°C) :** | +5 |
| **FINAL PERFORMANCES** | |
| **Pull-off strength ($N/mm^2$)** | >1.5 |
| **Compressive and flexural strengths carried out on 4x4x16 cm prisms ($N/mm^2$):**<br>- **after 3 days**<br>- **after 7 days**<br>- **after 28 days** | Flexural strength / Compressive strength<br>about 7 / about 50<br>about 9 / about 60<br>about 11 / about 70 |

**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**

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