MAPECOAT TNS BASE COAT BINDER

Acrylic resin-based concentrated base coat in water dispersion for multi-layer systems from the Mapecoat TNS range

DESCRIPTION

Mapecoat TNS Base Coat Binder is a concentrated base coat to be mixed with the correct amount of quartz sand in orderto adapt the mix to the porosity of different substrates, so that consumption rate in the following layers is optimised. **Mapecoat TNS Base Coat Binder**is ideal for levelling off small hollows, if present on the surfaces.

WHERE TO USE

- Basecoat for the preparation of new sports surfaces on bituminous or cementitious substrates.
- Basecoat for localised repairs on hollows up to 3 mm deep.
- Basecoat for the preparation of existing acrylic or polyurethane sports surfaces.
- Basecoat for the preparation of outoor urban flooring.
- Basecoat to improve the flooring's flateness and resilience.

RECOMMENDATIONS

- Do not dilute Mapecoat TNS Base Coat Binder with solvents.
- Do not apply **Mapecoat TNS Base Coat Binder** directly on dusty, crumbling or weak surfaces.
- Do not apply **Mapecoat TNS Base Coat Binder** on substrates with oil or grease stains or with stains in general.
- During the application phase, avoid prolonged exposure to sunlight as much as possible: **Mapecoat TNS Base Coat Binder** must be covered with further coatings from **Mapecoat TNS** range.
- The concrete substrate must be completely cured (min. 28 days with residual moisture under 3%) and free from rising damp. In case of new concrete substrates, apply a suitable vapour barrier.
- New asphalt substrates must be cured for at least 15-20 days, according to climatic conditions, to allow correct oxidation.
- Do not use **Mapecoat TNS Base Coat Binder** in combination with quartz with high moisture content or high impurity content, since this could alter the mix and compromise the durability and ease of application.
- Do not use Mapecoat TNS Base Coat Binder on substrates with water in counter-pressure. In this cases a suitable treatment of the surface with specific products must be carried out and only after the treatment the application of **Mapecoat TNS Base Coat Binder** can be evaluated, if possible.

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- **Mapecoat TNS Base Coat Binder** may only be applied over other finishing products after carefully checking the state of the old layer and after carrying out preliminary tests to verify their compatibility and that there is good adhesion between the old finishing product and **Mapecoat TNS Base Coat Binder**.
- It is possible to apply **Mapecoat TNS Base Coat Binder** on cementitious substrates only after priming.
- Do not apply if it is about to rain or in windy weather.
- Do not apply on damp or wet surfaces.
- The temperature of the substrate must be between +10°C and +50°C.
- Do not apply at temperatures lower than +10°C or higher than +35°C.

APPLICATION PROCEDURE

Preparation of the substrate

Before applying **Mapecoat TNS Base Coat Binder** the substrate must be flat, clean and free from dust, dirt, oil, grease, wax, old detaching coating residues and from any other substance or condition which could compromise or reduce the adhesion of the product. The substrate's mechanical strength must comply with its intended use and with the respective Sports Associations and Federations guidelines, if present.

Concrete substrates

The surface of the floor must be prepared with suitable power tools (e.g. shot-blasting or grinding with a diamond disk) to remove all traces of dirt, cement laitance and crumbling or detached portions and to make the surface slightly rough and absorbent. Before applying the product remove all dust from the surface with a vacuum cleaner.

As an alternative to the mechanical treatment described above, in case of smooth and low-absorbency surfaces, rinse with a solution of clean water and 5-10% **UltraCare HD Cleaner**. Spread the solution on the whole surface using a brush or a rotating cleaning machine and then rinse again with plenty of water (for further information please refer to **UltraCare HD Cleaner** Technical Data Sheet).

In order to grant the correct adhesion of **Mapecoat TNS Base Coat Binder**, a suitable primer must be applied on the dry substrate. In case of substrates with residual moisture up to 3% use Mapecoat TNS Primer EPW.

In presence of residual moisture from 3 to 6%, apply a suitable chemical barrier using **Triblock P** three-component epoxy-cementitious primer.

Apply the first coat of **Mapecoat TNS Base Coat Binder** within 24 hours of applying **Mapecoat TNS Primer EPW** and within 36 hours if a **Triblock P** chemical barrier has been applied.

Repair any cracks in the surface using epoxy resins such as **Eporip**, **Eporip Turbo**, **Epojet** or equivalent Mapei products. If necessary, repair areas of concrete with cementitious mortars from the **Mapegrout** or **Planitop** range or equivalent Mapei products.

Expansion joints must be sealed by applying **Mapefoam** and **Mapeflex PU 45 FT**, **Mapeflex PU 40** or equivalent Mapei products, broadcasting with Quartz 0.5 while the sealant is till fresh.

Bituminous substrates

Fill and repair any cracks using fillers for high thickness applications such as **Ultrabond Turf 2 Stars**, **Ultrabond Turf 2 Stars Pro** or **Ultrabond Turf PU 2K** (two-component quick-drying products).

In the presence of hollows up to 2 cm deep, the use of a balanced mix of the above-mentioned products (**Ultrabond Turf**) and 15-20% by weight of dry silica sand **Quartz 0.9** is recommended. Broadcast **Quartz 0.5** or **Quartz 0.9** on the surface while it is still fresh, making sure it is completely saturated.

Badly damaged and worn asphalt must be removed and replaced by applying **Mape-Asphalt Repair 0/8**.

Preparation of the product

Apply **Mapecoat TNS Base Coat Binder** in 1 or 2 coats depending on the conditions of the substrate. The final result is heavily influenced by the number of coats, the grain size of quartz sand the mixing ratio of **Mapecoat TNS Base Coat Binder**.

- Mix **Mapecoat TNS Base Coat Binder** in its original packaging with a suitable electric mixer fitted with a mixing attachment at low speed to avoid entraining air into the product.
- Pour **Mapecoat TNS Base Coat Binder** into a container suitable for mixing all the necessary components for product preparation.
- Mix **Mapecoat TNS Base Coat Binder** with 0.1-0.5 mm quartz sand.

- Dilute **Mapecoat TNS Base Coat Binder** with water and mix without entraining air into the mix for at least 2 minutes until an even mix is obtained. It is recommended to keep the mix well blended during the application phase repeating the mixing operation.

Coats	Mapecoat TNS Base Coat Binder	Water amount	Sand gain size	Amount of quartz sand
First coat	20 kg	from 3 to 4 l	0.2-0.5 mm quartz sand or similar	30 kg
Second coat	20 kg	from 3 to 4 l	0.2-0.5 mm quartz sand or similar	20 kg

Application of the product

Apply **Mapecoat TNS Base Coat Binder** with a rubber trowel (50 or 70 Shore hardness such as **Trowel 65 for Mapecoat TNS**) or a metal trowel.

Drying

This system generally involves applying 1-2 coats of **Mapecoat TNS Base Coat Binder**, waiting 12-24 hours between each coat in normal conditions.
Always check drying times based on weather conditions (low temperatures, potential shadow areas, high humidity percentage), which strongly affect drying and re-coat times.

CONSUMPTION (referred to undiluted product applied on a bituminous conglomerate substrate)

Coats	Consumption on porous substrates	Consumption on non-porous substrates
First coat	0.4-0.6 kg/m^2	0.2-0.4 kg/m^2
Second coat	0.3-0.5 kg/m^2	0.1-0.3 kg/m^2

CLEANING

Clean tools with water while the product is still fresh. Once dried, **Mapecoat TNS Base Coat Binder** must be removed using mechanical means.

PACKAGING

Mapecoat TNS Base Coat Binder is supplied in 20 kg plastic drums.

STORAGE

Mapecoat TNS Base Coat Binder remains stable for 24 months if stored in a dry place away from sources of heat at a temperature of +5°C to +30°C.Protect from frost.

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)

DESCRIPTION
Acrylic resin-based concentrated base coat in water dispersion for multi-layer systems from the Mapecoat TNS range

PRODUCT IDENTITY	
Appearance:	thick liquid
Dry solids content:	approx. 48%
Bulk density:	approx. 1.22 g/cm^3
Breaking load DIN 53504 after 7 days at +23°C (full cycle using Quartz 0.25):	> 0.40 MPa (mixing ratio with 1:1 sand)
Elongation at break DIN 53504 after 7 days at +23°C (full cycle using Quartz 0.25):	> 30% (mixing ratio with 1:1 sand)
Adhesion to concrete:	> 0.8 N/mm^2

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.
Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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