

# Mapecoat TNS Extreme

**Two-component rapid-drying coloured epoxy-acrylic resin-based coating in water dispersion with selected fillers**



## WHERE TO USE

Coating and protecting cycle lanes, pedestrian zones, areas open to vehicles and street furniture; suitable for application on bituminous and cementitious substrates.

### Some application examples

- Colouring, protecting and marking out pedestrian crossings and cycle lanes also used frequently by vehicles.
- Colouring and protecting areas used by vehicles, parking areas and access ramps.
- Colouring and protecting cycle lanes.
- Colouring pavements and pedestrian zones.
- Colouring and protecting surfaces with a stamped asphalt finish.
- Colouring and protecting piazzas, street furniture, multipurpose areas and areas used for sports.

## ADVANTAGES

**Mapecoat TNS Extreme** may be applied on new bitumen and cementitious surfaces or on old surfaces and paving, including those already coated.

**Mapecoat TNS Extreme** coats surfaces while protecting the sub-layer (asphalt or concrete) from wear caused by the constant passage of pedestrians or passing traffic.

**Mapecoat TNS Extreme** forms a non-slip finish on surfaces and has a very attractive finish.

**Mapecoat TNS Extreme** dries very quickly which means work may also be carried out more quickly.

**Mapecoat TNS Extreme** is resistant to most climatic conditions and aggression from smog and UV rays and forms a hard-wearing, durable protective layer on the substrate.

When **Mapecoat TNS Extreme** is applied on pervious substrates, the drainage capacity of the substrate may be maintained.

## TECHNICAL CHARACTERISTICS

**Mapecoat TNS Extreme** is a two-component, rapid-drying, epoxy-acrylic resin-based product in water dispersion which, thanks to its excellent physical and mechanical properties, may be used to colour and protect surfaces that have to withstand high levels of wear from pedestrians, the surface of cycle lanes and areas open to vehicles in both bitumen and concrete. Thanks to the specially selected fillers used to formulate **Mapecoat TNS Extreme**, it may be used as a finishing coat on external surfaces that need a good non-slip finish, such as pedestrian areas in public and private surroundings, cycle lanes, access ramps, etc. Unlike conventional colouring systems, **Mapecoat TNS Extreme** allows highly durable, textured surfaces to be created that maintain their non-slip effect over the years, including in wet weather. The mechanical properties of the coating, combined with its high resistance to chemical products potentially harmful to surfaces (such as de-icing salts, oil and fuel, etc.), also make **Mapecoat TNS Extreme** suitable for coating large areas, such as those that need to be treated

TECHNICAL DATA (typical values)		
<b>DESCRIPTION</b>		
Mapecoat TNS Extreme is a coloured epoxy-acrylic resin-based coating product in water dispersion with selected fillers for coating cycle lanes, pavements and street furniture		
<b>AREAS OF USE</b>		
Coating and protecting cycle lanes, pavements, areas used by vehicles and street furniture		
<b>PRODUCT IDENTITY</b>		
	component A	component B
<b>Colour:</b>	transparent	available in 35 chart colours or in customized colours upon request
<b>consistency:</b>	liquid	fluid paste
<b>Density (g/cm<sup>3</sup>):</b>	1.10	1.45
<b>Brookfield viscosity (mPa·s):</b>	1600 (rotor 4 - 10 revs)	45000 (rotor 6 - 10 revs)
<b>APPLICATION DATA (at +23°C - 50% R.H.)</b>		
<b>Mixing ratio:</b>	component A : component B = 4 : 96	
<b>Consistency of mix:</b>	fluid paste	
<b>Density of mix (g/cm<sup>3</sup>):</b>	1.38	
<b>Brookfield viscosity of mix (mPa·s):</b>	70000	
<b>Dry solids content (%):</b>	72	
<b>Application temperature:</b>	+10°C to +40°C	
<b>Workability time:</b>	8 hours	
<b>Touch dry:</b>	60-90 mins.	
<b>Recoat time:</b>	2 hours	
<b>Complete hardening time:</b>	48 hours	
After thoroughly mixing the 2 components, if required, dilute the product with around 10% of water (depending on the surrounding temperature and the condition of the substrate). Mix the product thoroughly before use. Where possible, use a drill at low-speed but take care to avoid entraining air into the product.		

periodically to prevent ice forming and/or for routine cleaning purposes.

From an aesthetic point of view, **Mapecoat TNS Extreme** is available in a wide range of colours from the MAPEI colour chart, along with other shades obtained using the **ColorMap** automatic colouring system, which means personalised colours may also be created.

From an application point of view, surfaces coated with **Mapecoat TNS Extreme** dry very quickly which means surfaces on which the product is applied may also be reopened very quickly.

#### RECOMMENDATIONS

- Do not dilute **Mapecoat TNS Extreme** with solvents.
- Do not apply **Mapecoat TNS Extreme** directly on dusty, crumbling or weak surfaces.

- Do not apply **Mapecoat TNS Extreme** on substrates with oil or grease stains or with stains in general.
- Do not apply **Mapecoat TNS Extreme** on surfaces where water in counter-pressure is present. In such cases, the substrate needs to be treated beforehand by adopting the most appropriate technical solutions and then checked to make sure it is feasible to apply **Mapecoat TNS Extreme**.
- **Mapecoat TNS Extreme** may be applied over old resin and paint: in such cases the condition of the old coating will need to be checked beforehand, such as its adhesion its compatibility with **Mapecoat TNS Extreme**, by testing it on a small area of the coating. If tests show the old finish is suitable for recoating, the surface must be prepared sufficiently by cleaning it with a degreasing product and then sanded to

make the application surface as rough as possible before applying **Mapecoat TNS Extreme**; if necessary, the surface must also be treated with a suitable primer. It is recommended to contact our Sports System Technology department or MAPEI Technical Services to check and discuss how to use **Mapecoat TNS Extreme** correctly, based on local conditions and type of substrate.

## **APPLICATION PROCEDURE**

### **Preparation of the substrate**

Substrates on which **Mapecoat TNS Extreme** is to be applied must be compact, strong and flat and have no detached or loose areas. The application surface for the coating in particular must be strong enough to withstand the loads acting on the surface when in use, particularly surfaces used by vehicles. New surfaces requiring treatment, or areas patched up with repair mortar, must be well-cured, perfectly clean, compact and dry. Cracks must be repaired by filling them with **Eporip** or **Eporip SCR** and, if necessary, areas of damaged concrete may be repaired, skimmed and levelled off with cementitious mortar from the **Mapecgrout** range, **Planitop Fast 330**, **Mapefinish**, **Planex HR** or **Planex HR Maxi**. Surfaces on which **Mapecoat TNS Extreme** is to be applied must be evened off so that the amount of material applied is the same all over the surface and to avoid unsightly surface defects. Lastly, to complete preparation of the substrate before applying **Mapecoat TNS Extreme**, concrete substrates must be dry before treating them with a suitable adhesion promoter, such as **Mapecoat TNS primer EPW** diluted 1:0.5 with water. In the case of concrete substrates with up to 6% of residual moisture, it is recommended to treat the surface with a suitable chemical barrier prior to applying the product, such as **Triblock P** three-component epoxy-cementitious primer. Apply the first coat of **Mapecoat TNS Extreme** within 24 hours of applying **Mapecoat TNS primer EPW** and within 36 hours if a **Triblock P** chemical barrier has been applied. In the case of substrates made from bitumen conglomerate, the surface must be clean, there must be no loose material and there must be no traces of oil, fuel or any other material or substance that could affect the soundness of the substrate. In the case of particularly deteriorated or dirty areas of asphalt, it may be necessary to remove these areas and then repair them with **Mape-Asphalt Repair 0/8** cold-applied reactive asphalt. Then, before applying **Mapecoat TNS Extreme**, any traces of dust or dirt on the surface must be vacuumed off or removed. There is no need to wait until the bitumen in the asphalt has oxidised before applying **Mapecoat TNS Extreme**. **Mapecoat TNS Extreme** may also be applied on bitumen substrates as soon as they have been applied so that the heat from the asphalt dries the product even more quickly, particularly when applied in cold weather. **Mapecoat TNS Extreme** may also be applied on the surface of old asphalt: in such cases, make sure the surface is

prepared sufficiently by hydro-blasting it with water.

### **Preparation of the product**

**Mapecoat TNS Extreme** is a two-component product. The two components which make up the product must be mixed together just before application. Mix component B thoroughly and add the contents of component A. Mix again for at least 2 minutes with an electric mixer fitted with a mixing attachment at low-speed to avoid entraining air into the product until they are completely blended. Once the two components of **Mapecoat TNS Extreme** have been mixed together, dilute with 10-15% of water and mix again using the same procedure as before.

### **Application of the product**

Apply **Mapecoat TNS Extreme** by spray with an air-HVLP spray gun or with a roller, spreader or rubber rake.

The application cycle consists of at least 2 coats of **Mapecoat TNS Extreme**; wait 2 hours between each coat in normal conditions (50% humidity and a surrounding temperature of +23°C).

Protect freshly-coated surfaces from rain after applying **Mapecoat TNS Extreme** to prevent it coming into contact with water before it completely dries, otherwise adhesion and final finish may be affected.

## **PRECAUTIONS TO BE TAKEN DURING PREPARATION AND APPLICATION**

Do not apply **Mapecoat TNS Extreme** if it is about to rain or in windy weather.

Do not apply **Mapecoat TNS Extreme** on damp or wet surfaces, also after cleaning of the substrates, otherwise it may not adhere correctly.

Do not apply if the temperature is lower than +10°C or higher than +40°C. Do not apply if the temperature of the substrate is higher than +50°C. Do not apply if the level of humidity is higher than 85%.

### **Cleaning**

Clean tools used to apply the product with water. Once dry, **Mapecoat TNS Extreme** may only be removed mechanically. Clean all tools and equipment thoroughly immediately after applying the product, particularly spray pumps.

### **CONSUMPTION**

The consumption rate for **Mapecoat TNS Extreme** is heavily influenced by the absorption and roughness of the substrate and by the application method used. For level, even substrates the consumption rate is around 1.5-1.80 kg/m<sup>2</sup> for 2 coats.

The typical consumption rate when applied on cementitious substrates is around 0.80-1.20 kg/m<sup>2</sup> for 2 coats.

### **PACKAGING**

**Mapecoat TNS Extreme** is supplied in 16.64 kg kits:  
– component A 0.64 kg;  
– component B 16.00 kg.

# Mapecoat TNS Extreme

## COLOUR

Mapecoat TNS Extreme is available in various colours from the MAPEI colour chart or in personalised colours upon request.

## STORAGE

12 months if stored in a dry place away from sources of heat at a temperature of +5°C to +30°C. Protect from freezing weather.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapecoat TNS Extreme component A irritates the skin and eyes; components A and B may cause sensitisation to those predisposed if they come into contact with the skin. The product contains low molecular weight epoxy resins that may cause sensitisation if cross-contamination occurs with other epoxy compounds. When applying the product it is recommended to wear 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 advice.

Mapecoat TNS Extreme components A and B are also hazardous for aquatic life. Do not dispose of these products in the environment. For further and complete information about the safe use of our product please refer to the latest version of our 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](http://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](http://www.mapei.com).**

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**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**



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