

Mapecoat EPN 24 AP

Two-component, solvent-free, novolac epoxy coating for high chemical-resistant applications

WHERE TO USE

Production and storage areas in laboratories, pharmaceutical plants, oil and gas installations, etc. requiring high chemical and mechanical protection, particularly areas exposed to contact with aggressive chemical agents such as acids, alkalis and hydrocarbons.

Some application examples

- Industrial flooring for chemical plants, pulp and paper mills, workshops, hangers, etc.
- Protective coating of purification tanks, storage tanks, silos and bund areas
- Protection of discharge tanks for oil and hydrocarbons.

TECHNICAL CHARACTERISTICS

Mapecoat EPN 24 AP is a two-component, solvent-free, novolac epoxy resin. After curing, **Mapecoat EPN 24 AP** resists the aggressive action of acids, alkalis, salts, oils, hydrocarbons.

Due to its high mechanical strength and excellent abrasion-resistance, **Mapecoat EPN 24 AP** filled with aggregates is suitable for floors subject to medium to heavy traffic.

Mapecoat EPN 24 AP is solvent-free, low-odour and easy to clean and also has an attractive finish.

Mapecoat EPN 24 AP may be applied as a high-build coating system (2-3 roller coat application) or, added with suitable quartz aggregate fillers, a high performance chemical resistant flooring system in a range of standard colors.

Floors coated with **Mapecoat EPN 24 AP** are ready for foot traffic approximately 18 hours after application, and for light traffic after only 24 hours (at 25°C). Complete chemical resistance and mechanical strength is developed after 7 days (at 25°C).

RECOMMENDATIONS

Do not apply **Mapecoat EPN 24 AP** :

- on damp surfaces if Triblock P (vertical surface) and Triblock TMB (horizontal surface) has not previously been applied ;
- diluted with solvent or water ;
- if rain is imminent ;
- at temperatures below +5oC ;
- on hot surfaces or surfaces exposed to direct sunlight ;
- on dusty, crumbly surfaces ;
- on surfaces subject to rising damp (consult our Technical Service).

Mapecoat EPN 24 AP

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Appearance:	component A : Liquid component B : Liquid
Colour of the mix:	standard RAL colour range
Solids content (%):	100
APPLICATION DATA	
Mixing ratio (by weight):	comp. A : comp. B = 4 : 1
Estimated dosage per mm thickness (kg):	1.7 (self-smoothing application)
Consistency of the mix:	flowable
Substrate temperature relative to dew point:	≥3°C above dew point
Recommended application temperature range:	minimum +5°C; maximum +35°
Pot-life:	15 minutes at +28°C
Touch dry at 25°C (hrs):	4
Maximum recoating time at 25°C (hrs):	18
No. of coats recommended :	minimum 2
FINAL PERFORMANCE	
Set to light-foot traffic at 25°C (hrs):	18
Final hardening time at 25°C (days):	7
Compressive strength (N/mm ²):	45
Flexural strength (N/mm ²):	20
Tensile strength (N/mm ²):	12
Bond strength (N/mm ²):	>2.7 (100% concrete failure)
Shore D Hardness:	>70
Temperature resistance (after full cure):	+150°C (dry)
Abrasion resistance by Taber (CS-17 wheel, gm/kg loading, 1000 rpm):	0.1

APPLICATION PROCEDURE

Preparation of the substrate

The cementitious substrate must be solid, mechanically strong, perfectly clean, free of crumbling parts and standing water. It must be sufficiently cured and have completed most of the shrinkage phase.

Preparation may be carried out by sand-blasting, shot-blasting or grinding according to the condition of the substrate. Seal cracks and repair deteriorated areas with products from our **Mapegrout** range or consult our Technical Service Department.

The concrete substrate must be strong and sound with a minimum compressive strength of 25 N/mm² and pull-off strength of 1.5 N/mm².

Damp substrates (moisture content >4%), must be treated with **Triblock P** (on vertical surface) or **Triblock TMB** (on horizontal surface) prior to the application. (Consult our Technical Service Department)

PRIMER

Apply **Primer SN** by roller at a rate of 0.3-0.5 kg/m² dosage depending on the substrate condition. Avoid the formation of puddles. Allow to dry for 8-12 hours.

If anti-slip finish is required for roller coat applications, immediately after application of **Primer SN**, sprinkle with dry quartz 20/80 in excess. Remove unbonded quartz the following day.

Preparation of Mapecoat EPN 24 AP

The two components which make up **Mapecoat EPN 24 AP** must be mixed together completely. Pour all of component B into the container with component A, and carefully mix together using a low-speed drill with a blending attachment until homogeneity is obtained.

If **Mapecoat EPN 24 AP** is applied as a flooring system, add approx. 20% of Quartz 50/80 into the mixture and further mix until homogeneity is obtained. Do not mix partial quantities.

Application of Mapecoat EPN 24 AP

Mapecoat EPN 24 AP can be applied with traditional methods, by roller or brush in 2-3 coats.

If **Mapecoat EPN 24 AP** is applied as a self-smoothing flooring system, apply using a notched trowel to the desired thickness and finish with a spike roller to release entrapped air.

CONSUMPTION

Roller application: 0.3 – 0.6kg/m² per coat
Self-smoothing application: 1.70kg/m² per 1.0mm thickness

Cleaning

Tools and equipment used to prepare and apply **Mapecoat EPN 24 AP** must be cleaned with solvents/thinner immediately after use. After hardening, the product may only be removed using mechanical means.

PACKAGING

Mapecoat EPN 24 AP is available in 5 kg units (component A 4kg + component B 1kg)

STORAGE

12 month in its original unopened container. Store in a dry place at 25°C.

CHEMICAL RESISTANT

Mapecoat EPN 24 AP will resist spillage of: (tests conducted at 25°C after 7 days)

- Hydrochloric acid, citric acid, lactic acid, sulphuric acid.
- Concentrated alkalis including sodium hydroxide to 70% concentration
- Hydrocarbons and petrol
- Mineral oils, kerosene, gasoline and brake fluids

(For resistant to other chemicals, please refer to our Technical Service Department.)

LIMITATIONS

Yellowing of the floor surface exposed to UV may occur especially in light colors (eg. light grey) without affecting its functionality.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

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

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
for the product are available
upon request and from
www.mapei.com**



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