



Mapecoat I 24

Two-component epoxy paint for the chemical protection of concrete



WHERE TO USE

Protection of floors, reservoirs and concrete pipes in contact with aggressive chemical agents such as acids, caustic solutions, hydrocarbons; protection of cisterns containing food products, and especially those containing drinking water.

Some application examples

- Anti-acid protection of sewage pipes.
- Protective coating of purification tanks.
- Chemical and mechanical protection of industrial floorings.
- Protection of exhaust tanks for oil and hydrocarbons.
- Protection of cisterns containing drinking water.

TECHNICAL CHARACTERISTICS

Mapecoat I 24 is a two-component epoxy-resin based paint with special pigments that provide excellent covering capability, prepared according to a formula developed in the MAPEI research laboratories. After drying completely, **Mapecoat I 24** resists the aggressive action of acids, alkalis, salts, oils, hydrocarbons and solvents, as shown in Table 1. The hardened film is, moreover, suitable for contact with drinking water and food indicated in the table of the No. 2 attachment of the Italian MD 26/4/93 No. 220.

Mapecoat I 24 resists frost, maintaining the appearance of the surface treated.

RECOMMENDATIONS

- Do not use **Mapecoat I 24** on damp surfaces.

- Do not dilute **Mapecoat I 24** with solvents or water.
- Do not apply **Mapecoat I 24** if rain is imminent.
- Do not apply **Mapecoat I 24** at temperatures below +5°C.
- Do not apply **Mapecoat I 24** on hot surfaces or surfaces exposed to direct sun light.
- During hot weather, before mixing the two parts, avoid their exposure to direct sun. It is recommended to store them for at least 24 hours at +10°C.
- Do not apply **Mapecoat I 24** on dusty or crumbly surfaces.
- Do not apply **Mapecoat I 24** on surfaces subject to rising damp (consult our Technical Assistance service).

APPLICATION PROCEDURE

Preparing the substrate

The surfaces to be coated must be completely clean, solid and dry. Sandblast surfaces to remove loose particles, dust, grease, and traces of form-release oils and paint. Seal cracks or deteriorated areas with products from the **MapegROUT** line. Porosities and small surface imperfections can be levelled with **Mapecoat I 24** smoothing compound. **Mapecoat I 24** must be applied only after complete curing of the substrate.

Preparing the paint

Pour part B (hardener) into part A (resin) and mix with a stirrer at low speed to avoid the formation of air bubbles, till a homogeneous paste is obtained.

Mapecoat I 24

Do not use partial quantities of the components, thus avoiding accidental errors in dosage that would compromise the hardening of **Mapecoat I 24**.

Applying the paint

Mapecoat I 24 can be applied with a brush, roller, or airless spray gun in 2 coats. The second coat can be applied from 6 to 24 hours later, depending on ambient conditions. Protect the coated surface from rain for at least 12 hours.

Mapecoat I 24 is ready for light foot traffic after 24 hours.

INSTRUCTIONS TO BE FOLLOWED DURING PREPARATION AND APPLICATION

Mapecoat I 24 can irritate the skin.

The use of protective gloves and goggles is recommended both during preparation and application of the product.

When **Mapecoat I 24** is used in closed or badly ventilated areas, ensure adequate ventilation. In case of contact with eyes, wash abundantly with water and consult a doctor.

Maintenance during application

The surface coated with **Mapecoat I 24** can



Mixing part B with part A



Applying Mapecoat I 24 with roller



Applying first coat of Mapecoat I 24 on concrete

CHEMICAL RESISTANCE OF MAPECOAT I 24

CHEMICAL PRODUCTS	Concentration (%)	EXPOSURE	
		PERMANENT	SPORADIC
ACIDS			
Acetic acid	2.5	+	+
Hydrochloric acid	37	(+)	+
Chromic acid	20	-	-
Citric acid	10	+	+
Formic acid	2.5	+	+
Lactic acid	2.5	+	+
Lactic acid	5	+	+
Lactic acid	10	+	+
Nitric acid	25	-	(+)
Nitric acid	50	-	-
Pure oleic acid	100	(+)	+
Phosphoric acid	50	+	+
Phosphoric acid	75	+	+
Sulphuric acid	1.5	+	+
Sulphuric acid	50	(+)	+
Sulphuric acid	96	-	-
Tannic acid	10	+	+
Tartaric acid	10	+	+
Oxalic acid	10	+	+
ALKALIS			
NH ₃ in water solution	25	+	+
Caustic soda	50	+	+
Hypochlorite, Na sol. (active chlorine 6,4 g/l)		+	+
SATURATED SOLUTIONS			
Sodium hyposulphite		+	+
Calcium chloride		+	+
Ferric chloride		+	+
Sodium chloride		+	+
Sodium chromate		+	+
Sugar		+	+
Aluminium sulphate		+	+
Potassium hydroxide	50	+	+
Hydrogen peroxide	1	+	+
Hydrogen peroxide	10	+	+
Sodium bisulphite	10	+	+
OILS and FUELS			
Petrol, fuels		+	+
Oil of turpentine		+	+
Diesel oil		+	+
Coal tar oil		(+)	+
Olive oil		+	+
Light fuel oil		+	+
Heavy fuel oil		+	+
Petroleum		+	+
SOLVENTS			
Ethylene glycol		+	+
Glycerine		+	+
Methylcellulosolve		-	-
Perchloroethylene		-	(+)
Carbon tetrachloride		(+)	+
Trichloroethylene		-	-
Chloroform		-	-
Methylene chloride		-	-
Tetrahydrofuran		-	-
Toluene		(+)	+
Carbon sulphide		-	+
Benzene		+	+
Trichloroethane		(+)	+
Xylene		(+)	+
Benzol		(+)	+
+ EXCELLENT RESISTANCE		(+) GOOD RESISTANCE	
		- POOR RESISTANCE	

TECHNICAL DATA (typical values)

PRODUCT IDENTIFICATION

	Part A	Part B
Colour:	white or grey	transparent
Consistency:	thick paste	fluid
Specific gravity (kg/dm³):	1.43	1.003
Brookfield viscosity (mPa·s):	20,000 (7 shaft, 20 rev.)	500 (2 shaft, 20 rev.)
Storage:	12 months in original packaging	
Hazard classification according to EC 99/45:	irritant Before using refer to the "Safety Instructions for the preparation and application" paragraph and the information on the packing and safety data sheet	
Customs class:	3907 30 00	

COMPOSITION AND PROPERTIES OF THE MIXTURE at +23°C and 50% R.H.

Mixing ratio:	Part A : Part B = 4 : 1	
Specific gravity (A+B) (kg/dm³):	1.3	
Brookfield viscosity (A+B) (mPa·s):	1,500 (7 shaft, 20 rev.)	
Hazard classification according to EC 99/45:	irritant	corrosive
Colour (A+B):	white, Manhattan grey	
Pot life at +23°C:	30'-40'	
Setting time of film at +23°C:	4-5 hours	
Interval between coats:	6-24 hours	
Final hardening time:	3 days	
Abrasion Taber Test (abrading wheel CS10 - 1000 rev.):	0.10 grams	



Spreading dry sand on fresh Mapecoat I 24



Finished surface

Mapecoat I 24



be washed with water and detergents (after a preliminary test, given the large number of cleaning products on the market).

CLEANING

Brushes, rollers and airless spray guns can be cleaned with ethyl alcohol before **Mapecoat I 24** dries.

CONSUMPTION

400-600 g/m² per coat.

PACKAGING

Mapecoat I 24 is available in 5 kg units (Part A kg 4 + Part B kg 1).

STORAGE

Store in a dry place, away from heat and flame, at temperatures between +5°C and +30°C.

SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

The product contains epoxy resins and polyamines that in contact with the skin could cause irritation and an allergic reaction to those predisposed. Use gloves and protective goggles. Avoid inhaling the vapours. The not completely hardened

product is dangerous for the environment and must be disposed as dangerous waste.

FOR PROFESSIONALS.

WARNING

Although the technical details and recommendations contained in this 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.

All relevant references of the product are available upon request

(GB) A.G. BETA

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