

MAPECOAT I 620 W

Two-component water-based epoxy coating with a shiny finish, for concrete floors and cementitious substrates, to provide an anti-dust, oil resistant finishing treatment, and as a coating for epoxy systems



Mapecoat I 620 W is specially formulated to form a shiny, protective anti-dust and anti-oil film, which is applied directly onto concrete or cementitious systems, such as **Ultratop**.

Some application examples

- Anti-dust finish on concrete floors.
- Finishing product for resin floors, such as **Mapefloor System 53**.
- Finishing product for **Ultratop**, for a water-repellent, anti-dust and anti-oil surface on the substrate without significantly altering the natural colour of the **Ultratop** system.

TECHNICAL CHARACTERISTICS

Mapecoat I 620 W is a solvent-free, two-component, low-yellowing water-based epoxy coating, produced according to a formula developed in MAPEI's own R&D Laboratories.

Mapecoat I 620 W is applied using a roller or *airless* spray system, at various thicknesses from 100 to 150 microns. After hardening, it offers excellent resistance to abrasion. If an anti-slip finish is required, add from 5 to 10% by weight of **Mapefloor Filler** to **Mapecoat I 620 W**, according to the degree of anti-slip finish required.

Mapecoat I 620 W complies with the principles defined by EN 1504-9 ("*Products and systems for protecting and repairing concrete structures. Definitions, requirements, quality control and conformity assessment. General principles for the use and application of systems*") and the minimum requirements of EN 1504-2 ("*Protection systems for concrete surfaces*") for class: products for protecting surfaces - coating (C) – moisture control (MC) – physical resistance/surface improvement (PR) + increasing resistivity by limiting moisture content (IR).

RECOMMENDATIONS

Do not apply **Mapecoat I 620 W**:

- on dusty, crumbling or irregular surfaces;
- on greasy surfaces or surfaces subject to water under counter-pressure;
- do not dilute **Mapecoat I 620 W** with solvents.

Apply **Mapecoat I 620 W**:

- evenly in a uniform thickness;
- using a short or medium-haired roller on concrete or **Ultratop**.

APPLICATION PROCEDURE

Preparation of the substrate

Mapecoat I 620 W can be applied on old concrete, that must be perfectly clean and free of oil, grease and/or any other type of contamination. Before carrying out the treatment, all surfaces must be sanded down, and the resulting dust must be removed with an industrial vacuum cleaner.

Mapecoat I 620 W can be applied on **Ultratop**, that must be perfectly set; wait at least 24 hours (according to the thickness applied) before painting.

Preparation of the product

Mapecoat I 620 W is a shiny epoxy finishing product, made up of two pre-dosed components. We recommend preparing the product as follows: pour component A into the container of component B, and carefully mix them together using a low-speed drill with a blending attachment until a homogenous mix is obtained. Add 10 to 20% of water by weight while mixing, until the paste formed is once again homogenous.

Mapecoat I 620 W may be coloured by adding, during the mixing, 10% by weight of **Mapecolor Paste**.

Anti-slip finish

If an anti-slip finish is required, add 5-10% by weight of **Mapefloor Filler** to the paste, and continue mixing for a few more minutes. In this case, we recommend that the paste is kept well blended to avoid sedimentation of **Mapefloor Filler**.

Application of the product

Mapecoat I 620 W must be applied evenly using a short/medium haired roller or with an *airless* spray system.

CLEANING

Tools and equipment used to prepare and apply **Mapecoat I 620 W** must be cleaned with water immediately after use. Once it has set, the product may only be removed mechanically.

CONSUMPTION

0.1-0.25 kg/m² per coat, according to the characteristics of the substrate on which it is applied and the application method used.

PACKAGING

15 kg kits:

component A = 5 kg in plastic tubs;

component B = 10 kg in plastic tubs.

STORAGE

Mapecoat I 620 W can be stored for 12 months in its original packaging in a dry place, and at a temperature of at least +10°C.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapecoat I 620 W component A is irritant for the eyes and the skin.

Component B of **Mapecoat I 620 W** is corrosive and may cause damages to the eyes, and is harmful if swallowed.

Mapecoat I 620 W component A and B are irritants for the skin and may cause sensitisation in those subjects sensitive to such substances. The product contains low molecular weight epoxy resins that may cause sensitisation if cross-contamination occurs with other epoxy compounds.

When applying the product, we recommend the use of protective gloves and goggles and to take the usual precautions for handling chemical products. If the product comes into contact with the eyes or skin, wash immediately with plenty of clean water and seek medical attention.

Mapecoat I 620 W 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 Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)		
PRODUCT IDENTITY		
	component A	component B

Colour:	straw-coloured	whitish	
Appearance:	liquid	thick liquid	
Density (g/m ³):	1.10	1.25	
Viscosity at +23°C (mPa·s):	6,000 (# 5 - rpm 10)	5,000 (# 5 - rpm 10)	
Maximum VOC content according to 2004/42/EC (g/l):	50		
APPLICATION DATA (at +23°C and 50% R.H.)			
Mixing ratio:	component A : component B = 50 : 100		
Colour of mix:	opalescent		
Consistency of the mix:	fluid		
Dry solids content (%):	52		
Density of the mix (kg/m ³):	1,180		
Viscosity of the mix (mPa·s):	5,500 (# 5 - rpm 10)		
Application temperature range:	from +12°C to +30°C		
FINAL PERFORMANCE (at +23°C and 50% R.H.)			
Pot life:	40 minutes		
Dust dry:	3 hours		
Setting time:	8-9 hours		
Set to light foot traffic:	24 hours		
Final hardening time:	7 days		
PERFORMANCE CHARACTERISTICS FOR CE CERTIFICATION ACCORDING TO EN 1504-2, CLASSES ZA.1d, ZA.1e, ZA.1f (coating C, principles MC - IR - PR)			
Performance characteristic	Test method according to EN 1504-2	Requirements	Product performance
Abrasion resistance (Taber test): Note: testing methods according to EN 13813 for flooring systems are also acceptable	EN ISO 5470-1	Weight loss less than 3 000 mg abrading wheel H22 / rotation 1 000 cycles / load 1 000 g	360 mg
Permeability to water vapour:	EN ISO 7783-1-2	class I: $s_D < 5$ m (permeable to water vapour) class II: $5 \text{ m} \leq s_D \leq 50$ m class III: $s_D > 50$ m (not permeable to water vapour)	class I
Capillary absorption and water permeability:	EN 1062-3	$w < 0.1 \text{ kg}/(\text{m}^2 \cdot \text{h}^{0.5})$	0.002 $\text{kg}/(\text{m}^2 \cdot \text{h}^{0.5})$
Resistance to thermal shock (1x):	EN 13687-5	$\geq 2 \text{ Mpa}$	3.48 Mpa

Resistance to impact measured on MC (0.40) coated concrete samples according to EN 1766. Note: the design thickness and impact load influence which class is chosen	EN ISO 6272-1	After loading no cracks and delamination; Class I: ≥ 4 Nm Class II: ≥ 10 Nm Class III: ≥ 20 Nm	class III
Pull-off test. Reference substrate: MC (0.4) as specified by EN 1766 curing: – 28 days for one-component systems containing concrete and PCC systems – 7 days for reactive resin systems	EN 1542	Average (N/mm ²) Cracking or flexible systems: with no traffic: ≥ 0.8 (0.5) ^{b)} with traffic: ≥ 1.5 (1.0) ^{b)} Rigid systems ^{c)} : with no traffic: ≥ 1.0 (0.7) ^{b)} with traffic: > 2.0 (1.0) ^{b)}	3.77 Mpa
Reaction to fire:	EN 13501-1	euroclasses	B _{fl} - s1

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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