



Mapecoat Universal



**Two-component
solventfree
transparent epoxy**



WHERE TO USE

Mapecoat Universal can be used as a transparent epoxy binder for:

- dust binder
- primer
- decorative floor made with “compact” method
- decorative skid resistant floor
- stone paving

Mapecoat Universal can also be used for glass fiber laminating, mixed with quartz sand for epoxymortar or mixed with **Sylothix 53** for epoxyputty.

Mapecoat Universal is normally applied on concrete and other cement-based substrates.

TECHNICAL CHARACTERISTICS

Mapecoat Universal is a wear resistant epoxy for concrete floors, walls, ceilings etc.

Mapecoat Universal gives a chemically resistant, hard, smooth surface that is easy to clean.

Mapecoat Universal exhibits minimal yellowing compared to other epoxybinders.

Mapecoat Universal complies with the principles defined in EN 1504-9 standards (“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 requirements of EN 1504-2 (“Protection systems for concrete surfaces”) for class: products for protecting surfaces - coating (C) - PI, IR, PR and MC.

Mapecoat Universal complies with EN 13813.

APPLICATION PROCEDURE

Preparation of the substrate

The concrete must be sound, clean and dust-free with a smooth permanent surface. Normal cleaning methods such as milling, grinding or shot blasting can be used. The substrate’s surface temperature should be at least +10°C and at least +3°C above the applicable dew point during product application.

Preparation of the product

Components A and B should have a temperature of +15°C or more when mixed together. Component B is poured into component A and mixed with a drill whisk at a slow speed for approximately 3 minutes until the product is completely homogenous.

The product must not be thinned!

Application of the product

Used as a dust binder:

Mapecoat Universal should be applied using a roller or trowel in one or two coats depending on the substrate.

Used as a primer:

Mapecoat Universal should be applied using a roller or trowel in one or two coats, depending on the substrate. After application, the primer should form a covering layer without any dry areas. If there are more than 24 hours at +20°C until application of the coating, the primer should be dressed with a light layer of dry sand

- of grain size 0.4 to 0.8 mm (grain-to-grain) in order to ensure good adhesion for the subsequent coating.

Used as decorative floor - compact method - system Mapefloor EP Compact:

Mapecoat Universal should be mix in 1:1 ratio by weight with compactfiller or **Mapefloor SL comp. C**, and be applied on the scattered primer with a smooth or toothed trowel in an even thickness. While the mix is still fresh the surface should be scattered to a slight excess with **Mapequarz Color**, and then smoothed with a power trowel suitable for epoxyfloors. The next day a thin layer of **Mapecoat Universal** should be applied with a smooth trowel to seal the surface without changing the surface structure.

Used as skid resistant decorative floor - system **Mapefloor EP Decor S:** **Mapecoat Universal** should be mix in 1:1 ratio by weight with compactfiller or **Mapefloor SL comp. C**, and be applied on the scattered primer with a smooth or toothed trowel in an even thickness. While the mix is still fresh the surface must be scattered to excess with **Mapequarz Color**. The next day excess quartz sand should be removed, and **Mapecoat Universal** should be applied with a roller or trowel in one or two coats.

Used as a stone paving:

Mapecoat Universal should be added approx. 0.5 % **Syltothix 53** (depending on the temperature), and be properly mixed again. Then add 12 parts by weight with Steinteppesand (natural stone) to 1 part **Mapecoat Universal**, and apply the mix on the scattered primer with a floorsliding case and a smooth trowel. After application the surface should be smoothed with a power trowel for epoxyfloors.

PLEASE NOTE!

Mapecoat Universal should always be applied in an even thickness. Different thicknesses can cause visual color differences - especially in case of floors done by the "compact" method. If the product is applied in areas with a high concentration of CO₂, high moisture and/ or temperatures less than 3 degrees above dew point, this might lead to a sticky and discoloured surface. Before any further treatment, this must be removed and the surface must be recoated.

CLEANING

Tools and equipment must be washed immediately after use with **Spesialtynner**, ethanol or other cleaning agent suited for epoxy. Once hardened the product may only be removed mechanically.

CONSUMPTION

Used as a dust binder or primer: approx. 0.2 - 0.4 kg/m² per coat.
Used as decorative floor - compact method - system **Mapefloor EP Compact** - total from 1.5 kg/m².

Used as skid resistant decorative floor - system **Mapefloor EP Décor S** - total from 2.0 kg/m².

Used as a stone paving - total from 1.0 kg/m².

Consumption is depending on the temperature and the substrate's coarseness and absorption.

PACKAGING

1 kg set:
component A = 0.67 kg and
component B = 0.33 kg

3 kg set:
component A = 2 kg and
component B = 1 kg

12 kg set:
component A = 8 kg and
component B = 4 kg

20 kg set:
component A = 13.33 kg and
component B 6.67 kg

300 kg kg set:
component A = 200 kg drums and
component B = 100 kg drum

600 kg set:
component A = 2 x 200 kg drums and
component B = 200 kg drum

1500 kg set:
component A = 1000 kg IBC and
component B = 500 kg IBC

3000 kg set:
component A = 2 x 1000 kg IBC and
component B = 1000 kg IBC

STORAGE

Properties for use are not changed for a period of 24 months if stored between +5°C and +30°C in unopened in original packaging.

SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

Instructions for the safe use of our products can be found on the latest version of the SDS available from our website www.mapei.no

PRODUCT FOR PROFESSIONAL USE.

NOTE

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above

Mapecoat Universal: - is a two-component solventfree transparent epoxy. The product complies with specification in EN 13813 and EN 1504-2 Coating (C) principles: PI, IR, PR and MC

TECHNICAL DATA (typical values)

PRODUCT DETAILS		Component A	Component B
Color:		transparent	brown
Apperance:		liquid	liquid
Density (g/cm³):		1.12	1.01
Brookfield viscosity at +23°C (mPa•s):		approx. 1 130	approx. 64
APPLICATION DATA			
Color of mix:		transparent straw-colored	
Mixing ratio:		100:50 component A: component B	
Consistency of the mix:		dense fluid	
Density of the mix (kg/m³):		approx. 1 079	
Brookfield viscosity of the mix (mPa•s):		approx. 282	
Application temperature range:		+10°C - 30°C	
Potlife (EN 9514):		29 minutes	
FINAL PROPERTIES (7 days at +23°C and 50% R.H)			
Step on time:		12 hours	
Final setting time:		7 days	
Flexural strength (EN 12190):		35.2 MPa	
Shore D (ISO 868:2003):		approx. 75	
Performance characteristics for product or system	Test methods	Requirements according to EN 13813 for synthetic resin screeds	Product or system performance
Wear resistance:	EN 13892-4	< AR1	AR0.5
Bond strength:	EN 13892-8:2004	>1.5 N/mm²	> 4.7 N/mm²
Impact resistance:	EN 6272-1	> IR 4	> IR20*
Reaction to fire:	EN 13501-1	Declared value	B _{fl} - s1

Performance characteristics for product or system	Test methods	Requirements according to EN 1504-2	Product or system performance
Compressive strength:	EN 12190	Class I: ≥ 35 N/mm ² (for traffic with polyamide wheels) Class II: ≥ 50 N/mm ² (for traffic with steel wheels)	Class II* Compressive strength > 60 N/mm ²
Abrasion resistance:	EN ISO 5470-1	< 3000 mg H22/1000 cycles/load 1000 g	< 600 mg
Permeability to CO₂:	EN 1062-6	Permability to CO ₂ Sd > 50 m	Sd > 50 m
Water vapor permeability:	EN ISO 7783	Class I: Sd < 5 m Class II: 5 m < Sd < 50 m Class III: Sd > 50 m	Class II
Capillary absorption and permeability to water:	EN 1062-3	w < 0.1 kg/m ² *h ^{0.5}	w < 0.01 kg/m ² *h ^{0.5}
Chemical resistance:	EN ISO 2812-1	No visual defects after 30 days exposure	See separate list
Impact resistance:	EN 6272-1	Class I: ≥ 4 Nm Class II: ≥ 10 Nm Class III: ≥ 20 Nm	Class III*
Pull-off test Reference substrate: MC (0.40) as specified in EN 1766, curing time 7 days:	EN 1542	Average (N/mm ²) <u>Crack-bridging or flexible systems</u> With no traffic: ≥ 0.8 (0.5) With traffic: ≥ 1.5 (1.0) <u>Rigid systems</u> With no traffic: ≥ 1.0 (0.7) With traffic: ≥ 2.0 (1.0)	>4.7 N/mm ²
Reaction to fire:	EN 13501-1	Declared value	B _{fl} -s1

* used in system **Mapefloor EP Compact** or **Mapefloor EP Decor S**

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 web site www.mapei.no

LEGAL NOTICE

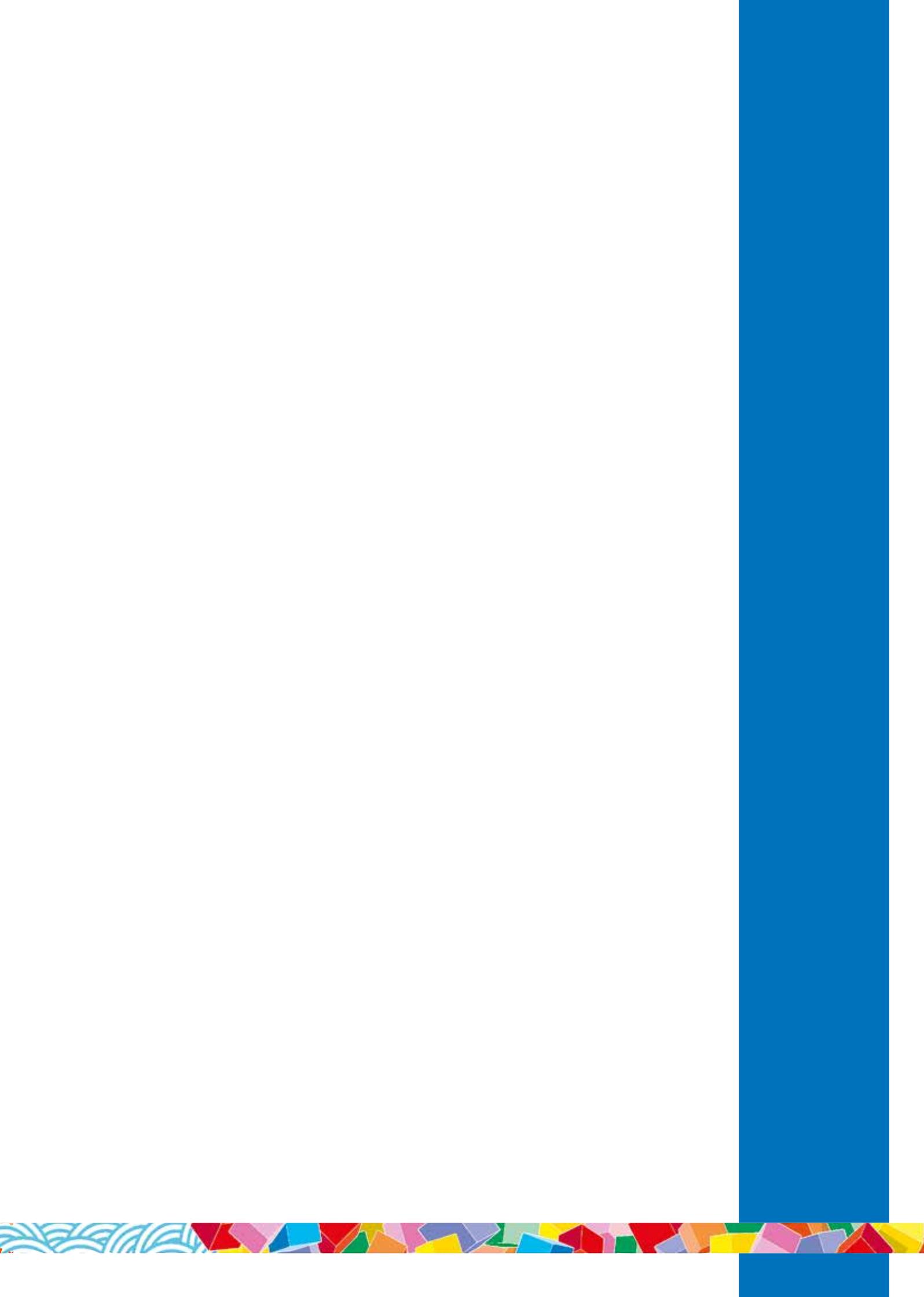
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force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website www.mapei.no

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

All relevant references for the product are available upon request and from www.mapei.no



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Universal**



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6734-10-2018 (GB)