

MAPECOAT GUARD 100

Multi-purpose epoxy coating product with excellent anti-corrosion characteristics



WHERE TO USE

Mapecoat Guard 100 is suitable for immersion in water and has a series of characteristics: cures at low temperatures, surface tolerant, rapid re-coat time, high tolerance to moisture during application and curing phases, excellent anti-corrosion properties.

TECHNICAL CHARACTERISTICS

Mapecoat Guard 100 may be applied directly on metal substrates as an anti-corrosion primer, or as an intermediate coat on other type of primer. Thanks to its excellent surface-wetting properties and quick handling after application, it is suitable for use on new structures and for maintenance work.

It may also be immersed in fresh water and seawater and is particularly recommended for use in marine environments.

- Cures at low temperatures (-7°C).
- Excellent anti-corrosion protection.
- Very easy to apply.
- Rapid re-coat time.
- Tolerates high levels of moisture during application.
- High maximum re-coat time when exposed to the open air.

RECOMMENDATIONS

- Epoxy products lose their shine and colour and may flake when exposed to direct sunlight.
- Do not apply on substrates with oil or grease stains or with dirt in general.
- Do not expose the mixed product to sources of heat.
- When using the product inside storage tanks or in closed areas, make sure there is sufficient ventilation and that good ventilation is maintained during the entire application and curing phases. The ventilation system must ensure that the concentration of solvents is kept below the explosive limit. Apart from keeping the areas well ventilated, all operators must wear suitable breathing apparatus.

APPLICATION PROCEDURE

Preparation of the surface

General guidelines: remove all traces of oil and grease from surfaces to be coated by cleaning them according to SSPC-SP 1 standards. Cement laitance, foam, oil, form-release compounds and residues of surface-hardening products must be removed using suitable equipment before applying the product.

Cement: do not apply the product if the cement has not been cured for at least 28 days at +21°C and R.H. 50%, or for an equivalent period of time.

Type of substrate

Steel: (Open air use) - for the best results: manual or mechanical surface preparation according to ISO 8501-1 ST2-ST3 (SSPC-SP 2-3-11) standards until all oxidation has been removed.

For the best results prepare surfaces according to SSPC-SP6/ISO 8501-1 SA2 standards or higher, with a 40-75µ profile (Medium G for ISO 8503-2).

Steel: (Immersed in water) Minimum ISO 8501-1 SA 2.5 (SSPC-SP 10) with a 40-75 µm profile (Medium G for ISO 8503-2 SSPC-SP2 or SP3 (ISO St 2 o St 3), or SSPCSP11).

Stainless steel: Surface profile should be a dense angular 1-3 mils and is best achieved through abrasive blasting in accordance with SSPC-SP16. Remove all contaminants that would interfere with the performance of stainless steel for the intended service such as, but not limited to, embedded iron or chlorides.

Cement: Remove all loose, unsound concrete. Remove all oils or other non-compatible sealers or treatments. Do not apply coating unless the concrete has cured at least 28 days at +21°C and R.H. 50%, or for an equivalent period of time. Consult our Technical Services Department (Italy) for specific instructions.

Preparation and application of the product

Mixing:

Mix the two components separately with a mechanical mixer. Blend the two components together while mixing constantly.

Mixing ratio:

In volume:

- component A: 4;
- component B: 1.

Dilution rate:

For surfaces exposed to the open air and for spray application, dilute with up to 8% in volume of **Diluente M2** thinners for temperatures lower than 20°C. For roller/brush application, dilute with up to 8% in volume of **Diluente M33** thinners it can be used for spray application in case of wind and/or high temperatures.

The use of thinners that are either not supplied or not approved by MAPEI Spa may reduce the performance properties of the product and will invalidate any form of implicit or explicit guarantee.

Pot-life 3 hours at +23°C.

Lower at higher temperatures. Pot-life terminates when the product loses its initial fluidity and starts to thicken.

Application instructions

Conventional spray

Use a pump with a tank equipped with a double regulator. Feed hose: 3/8" I.D. (minimum).

Nozzle: 0.070" I.D. with a suitable spray head.

Airless

Compression rate: 30:1.

Flow rate: 9.5 l/min. (minimum).

Feed hose: 3/8" I.D. (minimum).

Nozzle: 0.017-0.021".

Outlet pressure: 2000-2500 PSI.

Filter size: 60 mesh.

Teflon seals are recommended and are available from the pump manufacturer.

Brush & Roller (general guidelines)

Brush and roller application is the most suitable method for damp surfaces. Several coats may be required to obtain the finish required the cover and thickness specified. Avoid passing over the surface excessively. For the best results, smooth over the surface within ten minutes at +24°C.

Use a short-pile mohair roller with a phenolic core.

Application conditions

Only apply when the temperature of the surface to be coated is at least 3°C higher than the dew-point temperature.

If the temperature is higher or lower than in normal conditions, special application techniques or dilution rates may be required.

Mapecoat Guard 100 tolerates the presence of moisture on the substrate.

See Brush/Roller application above.

CONSUMPTION

6.5 m²/litre (100 µm).

Wastage must also be taken into consideration when mixing and applying the product.

CLEANING TOOLS

Clean tools used to prepare and apply **Mapecoat Guard 100** immediately after use with thinners. Once hardened, the product may only be removed using mechanical means.

PACKAGING

Metal can (A+B) = 15 litre kit:

- component A = 12 litres;
- component B = 3 litres.

STORAGE

The product must be stored in its original packaging in a dry place at a temperature of +4°C to +38°C. Maximum 24 months in its sealed container at +24°C.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Colour:	grey
Consistency:	liquid
Density of mix:	1,65 g/cm ³

APPLICATION DATA (at +23°C and 50% R.H.)

Mixing ratio in weight:	component A : component B = 82.5 : 17.5
Mixing ratio in volume:	component A : component B = 4 : 1
Consistency of mix:	liquid
Solids content (% in volume):	65 ± 2
Pot life (+23°C):	3 hours
Dust dry at +23°C and 50% R.H.:	30 mins.
Recoat time at +23°C and 50% R.H.:	45 mins.
Recommended thickness:	100-150 µ
Application temperature:	· material: min +7°C / max +32°C · ambient : min -7°C / max +38°C
VOC (product):	296 g/l
Resistance to temperatures (open air):	· continuous: +82°C · intermittent: +104°C

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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