PRIMER SN

Two-component fillerized epoxy primer



WHERE TO USE

Primer SN has been specifically formulated to carry out preliminary priming treatments on surfaces before applying epoxy and polyurethane resin systems from the **Mapefloor** range and self-levelling cementitious mortars from the **Ultratop, Ultratop Living** and **Ultratop Loft** ranges**,** to protect and coat civil and industrial floors, terrazzo floors and cementitious substrates in general.

Some application examples

- Adhesion promoter for epoxy and polyurethane coating products in general
- Adhesion promoter for self-levelling and/or multi-layered coating products
- Adhesion promoter for flooring made from the synthetic mortar
- Adhesion promoter for coatings from the **Ultratop, Ultratop Living** and **Ultratop Loft** ranges
- Fluid adhesive to seal cracks and make structural bonds

TECHNICAL CHARACTERISTICS

Primer SN is a two-component, fillerized epoxy resin-based primer applied with a roller, metal trowel, or smooth rake according to a formula developed in the MAPEI R&D Laboratories.

Coatings made with **Primer SN** prevent Radon (radioactive natural gas present in the soil) from penetrating inside buildings. Compliant with DIN ISO/TS 11665-13 standards, verified and certified by the IAF accredited laboratory for radionuclide analysis.

Primer SN may be used as it is or mixed with **Quartz 0.5** to improve adhesion of resin coating systems and even out surfaces. Thanks to its special formulation, **Primer SN** is characterised by its ability to penetrate into substrates and may even be applied on moderately damp surfaces.

RECOMMENDATIONS

- Do not apply **Primer SN** on substrates with rising damp if they are going to be coated with an epoxy or polyurethane system
- Do not dilute **Primer SN** with solvent or water
- Do not apply **Primer SN** on dusty, crumbling, or weak substrates
- Do not apply **Primer SN** on substrates with oil or grease stains or stains in general
- Do not apply **Primer SN** on substrates that have not been prepared according to specification
- Do not mix partial quantities of the components to avoid mixing errors; the product may not harden correctly
- Do not expose the mixed product to sources of heat

- If rooms where the product is being used need to be warmed up do not use heaters that burn hydrocarbons, otherwise the carbon dioxide and water vapour is given off into the air will affect the shine on the finish and ruin its appearance.
  Use electric heaters only
- Protect the product from water for at least 24 hours after application
- Do not apply the product directly on substrates with moisture content higher than 4% and/or with capillary rising damp (check by testing it with a sheet of polythene)
- The temperature of the substrate must be at least 3°C higher than the dew-point temperature

APPLICATION PROCEDURE

Preparation of the substrate

The surface of concrete floors must be preferably dry or slightly damp, clean and sound, and have no crumbling or detached portions. The substrate concrete must have a compressive strength of at least 25 N/mm² and a minimum tensile strength of 1.5 N/mm².
The strength of the substrate must also be suitable for its final use and the types of load to which it will be subjected.
The level of moisture in the substrate must be a maximum of 4% and there must be no capillary rising damp (check by testing it with a sheet of polythene).
The surface of the floor must be prepared with a suitable mechanical process (e.g. shot-blasting or grinding with a diamond disk) to remove all traces of dirt, cement laitance, and crumbling or detached portions, and to make the surface slightly rough and absorbent. Concrete surfaces impregnated with oil and grease must be thoroughly cleaned with a 10% solution of water and soda or detersive soap and then rinsed several times with plenty of clean water. Remove any water from the surface and wait until the level of residual moisture is no higher than 4% before applying **Primer SN**.
If the oil or grease has penetrated deeper into the substrate, on the other hand, all the affected concrete must be removed by scarifying. The substrate must then be integrated with **Mapefloor EP19** three-component epoxy mortar. Before applying **Primer SN** remove all traces of dust from the surface with a vacuum cleaner.

Preparation of the product

The two components that makeup **Primer SN** must be blended together just before application. Mix component A thoroughly and add the contents of component B. Add **Mapecolor Paste** if required and up to 50% by weight of quartz sand according to the room temperature (to even out rough surfaces). Mix again with a low-speed electric mixer to prevent entraining air into the mix (300-400 revs/min) for at least 2 minutes until the mix is completely blended. Pour the mix into a clean container and briefly mix again. Do not mix the product for too long to prevent entraining too much air into the mix. Apply the mix within the pot life indicated in the table (refers to a temperature of +20°C). Higher room temperatures will reduce the pot life of the mix, while lower temperatures will increase its pot life.

Application of Primer SN

Apply an even coat of neat **Primer SN** or mixed with **Quartz 0.5** on the substrate after it has been prepared as specified with a straight trowel or rake. Then broadcast with **Quartz 0.5** – according to the kind of system to be realized – to ensure the next coat of resin adheres perfectly. If **Ultratop** or **Ultratop Living** is to be applied, use 1.2 mm quartz sand for the broadcast. Make sure there are no open pores on the surface of the substrate, otherwise air bubbles could escape from the substrate and form pinholes in the coating system to be applied. This is particularly important when applying self-leveling resin or cementitious systems.

Cleaning tools

Clean tools used to prepare and apply **Primer SN** immediately after use with ethanol. Once hardened, the product may only be removed mechanically.

CONSUMPTION

0.3-0.70 kg/m² per coat depending on the characteristics of the substrate such as roughness, absorbency, temperature, etc.

PACKAGING

20 kg kits: component A = 16 kg; component B = 4 kg.

STORAGE

Primer SN must be stored in its original packaging in a dry place at a temperature of between +5°C and +30°C. Max. 24 months.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

When the product reacts it generates low amount of heat. After mixing components A and B, we recommend applying the product as soon as possible and never leaving the container unattended until it is completely empty.

Instruction on the safe use of our products can be found on the latest version of the Safety Data Sheet available on our website www.mapei.ae.

TECHNICAL DATA (typical values)

PRODUCT IDENTIFICATION		
	Component A	**Component B**
Colour:	Neutral	straw-yellow
Consistency:	liquid	liquid
Density (EN ISO 2811-1) (g/cm³):	1.65	0.99
Viscosity at +23°C (EN ISO 2555) (mPa·s):	3000 (# 4 - 20 rpm)	200 (# 1 - 20 rpm)

APPLICATION DATA (at +23°C and 50% R.H.)		
Mixing ratio:	component A : component B = 80 : 20	
Consistency of mix:	thick fluid	
Colour of mix:	neutral	
Density of mix (EN ISO 2811-1) (kg/m³):	1500	
Viscosity of mix (EN ISO 2555) (mPa·s):	1100 ± 100 (# 3 - 50 rpm)	
Workability time at +20°C:	30 min	
Application temperature:	from +8°C to +35°C	
Waiting time between coats at +23°C and 50% R.H.:		
– on Primer SN without a dry-shake finish of quartz sand:	min. 12 h	max. 48 h
– on Primer SN with a dry-shake finish of quartz sand:	min. 12 h	no maximum limit* *surfaces must be dry with no dust
Hardening time at +23°C and 50% R.H.:		
– dust dry:	approx. 6 hours	
– set to foot traffic:	approx. 24 hours	
– full hardening time:	approx. 7 days	

The times above are for indication purposes only and are influenced by actual site conditions (e.g., temperature of the surroundings and substrate, relative humidity of the surrounding air, etc.).

FINAL PERFORMANCE			
Performance characteristic	**Test method**	**Requirement according to EN 13813 for synthetic resin-based screeds**	**Performance of product**
Adhesion strength (N/mm²):	EN 13892-8; 2004	≥ 1.5	3.20
Reaction to fire:	EN 13501-1	from $A1_{FL}$ to F_{FL}	B_{FL}-s1
Compressive strength (N/mm²):	EN 196-1	–	63 (7 days at +23°C)
Shore D hardness:	DIN 53505	–	78 (7 days at +23°C)
Determination of the Radon diffusion coefficient	DIN ISO/TS 11665-13	-	R>3

IMPORTANT NOTES

Whilst we try to ensure that any advice, recommendations or information given in our literature is accurate and correct, we have no control over the circumstances in which our product is used. It is therefore important that installers satisfy themselves that the product and conditions are suitable for the envisaged application. No warranty can be given or responsibility accepted other than that the product supplied by us will meet our written specification. The installer should ensure that our latest product data and safety information sheets have been consulted prior to use.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.ae.

All relevant references for the product are available upon request and from www.mapei.com.

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