PRIMER SN

Two-component fillerized epoxy primer, in compliance with the Radon gas tightness standards

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, self-levelling cementitious mortars from the **Ultratop**/**Ultratop Living** range and of **Ultratop Loft**, 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 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 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**, a 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 which make up **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 surrounding temperature (to even out rough surfaces). Mix again with an electric mixer at low speed 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 surrounding 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 in 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-levelling 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

0.3-0.7 kg/m² per coat depending on the characteristics of the substrate such as roughness, absorbency, temperature, etc.

PACKAGING

5 kg kits: component A = 4 kg;
component B = 1 kg.
20 kg kits: component A = 16 kg;
component B = 4 kg.

STORAGE

24 months in its original sealed packaging, in a dry place at a temperature between +5°C and +30°C. Protect from frost.

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.
When the product reacts it generates considerable heat. After mixing components A and B we recommend applying the product as soon as possible and to never leave the container unguarded until it is completely empty.
PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)		
PRODUCT IDENTITY		
	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	
Colour of mix:	neutral	
Consistency of mix:	thick fluid	
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 mins.	
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: – on Primer SN with a dry-shake finish of quartz sand:	min. 12 hours, max. 48 hours min. 12 hours, no maximum limit* *surfaces must be dry with no dust	
Hardening time at +23°C and 50% R.H.: – dust dry: – set to foot traffic: – full hardening time:	approx. 6 hours approx. 24 hours 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	Requirements 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)
Performance characteristic gas Radon	**Test method**		**Performance of product**
Determination of the Radon diffusion coefficient:	DIN ISO/TS 11665-13		R > 3

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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