



# Primer SN™

## Two-Component, Fillerized Epoxy Primer



### DESCRIPTION

*Primer SN* is a two-component, fillerized epoxy primer specifically designed to enhance adhesion of multi-layer flooring systems, such as MAPEI's *Mapefloor™* polyurethane and epoxy deck and flooring systems, and as a primer for cement screeds and epoxy mortars. It is typically applied on concrete surfaces, such as floor slabs in institutional buildings, storage and logistical areas, parking garages, balconies and walkways. Low in VOCs and viscosity, *Primer SN* penetrates well for an excellent chemical bond both with the substrate and with coatings that are subsequently applied to the primer coating.

### FEATURES AND BENEFITS

- Enhances the bond of high-performance polyurethane and epoxy resin flooring systems
- Excellent adhesion to concrete substrate
- Eco-friendly
- Fluid consistency for sealing cracks up to 1/32" (1 mm) in width
- High capacity for penetrating into concrete substrate
- Can be applied to damp surfaces

### INDUSTRY STANDARDS AND APPROVALS

LEED Points Contribution

LEED Points

MR Credit 5, Regional Materials\* ..... Up to 2 points

IEQ Credit 4.2, Low-Emitting Materials – Paints & Coatings..... 1 point

\* Using this product may help contribute to LEED certification of projects in the categories shown above. Points are awarded based on contributions of all project materials.

### WHERE TO USE

- For priming concrete substrates to enhance the bond of multi-layer polyurethane and epoxy resin flooring systems
- For institutional buildings, storage and logistical areas, and wet and dry processing areas
- For sealing cracks

### LIMITATIONS

- Use only between the ambient and substrate temperatures of 46°F and 95°F (8°C and 35°C).
- Do not use on exterior, on-grade surfaces.
- Ensure that *Primer SN* is protected from water, dampness and condensation for at least 24 hours after application.
- Ensure that the temperature of the concrete is at least 5 degrees Fahrenheit (2,8 degrees Celsius) above the dew point during the application and curing of *Primer SN*.
- Test the concrete substrate using appropriate methods for testing calcium chloride (ASTM F1869) and methods for testing surface moisture content (ASTM F2170).
- Do not apply in areas when the relative humidity is greater than 85%.
- Do not mix partial quantities of Parts A and B.
- Do not dilute *Primer SN* with solvents or water.



## SUITABLE SUBSTRATES

- All substrates must be structurally sound, stable, clean, and free of any bond-inhibiting or bond-breaking materials.
- Properly prepared concrete substrates that have been mechanically prepared using engineer-approved methods to an International Concrete Repair Institute (ICRI) concrete surface profile (CSP) of #3. Substrates with a profile greater than CSP #3 will realize lower coverage rates.
- Concrete substrates should have a minimum tensile pull-off strength of 200 psi (1,38 MPa) and compressive strength of 3,500 psi (24,1 MPa).

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

## SURFACE PREPARATION

- Mechanically prepare the surface to obtain an ICRI CSP of #3. Ensure that all old adhesives, contaminants, etc., are completely removed. Inadequate mechanical surface preparation and subsequent cleaning of the substrate could leave cures and contaminants on the surface, which could lead to pinholing and bubbling in the *Primer SN* application.
- If outgassing is a concern on some substrates (which may lead to pinholing and bubbling in the *Primer SN* application), wait 16 to 48 hours after shotblasting (preferred method of surface preparation) before applying *Primer SN*.
- Construction, expansion, control and isolation joints must be honored through the finished flooring system. To ensure product performance, repair all cracks greater than 1/32" (1 mm) in width and treat joints using engineered approved methods.

## MIXING

Choose all appropriate safety equipment before use. Refer to the Safety Data Sheet for more information.

1. Premix the Part A resin to a homogenous consistency (for 3 minutes) using a low-speed drill (at 300 to 450 rpm) and a Jiffy (paint mixer) mixing paddle to minimize trapped air.
2. Pour the Part B hardener into the Part A container and mix thoroughly to a smooth, homogenous consistency. Do not mix at high speeds, which can trap air within the mixed material.
3. Ensure during the mixing process that the sides and bottom of the container are scraped down to completely mix all of the components.

## PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Before application, confirm the substrate's moisture content, relative humidity and temperature in relation to the dew point. See the "Limitations" section for details.
2. Pour mixed *Primer SN* onto the substrate in a continuous, pore-free coat. If necessary for particularly porous surfaces, two priming coats may be applied. And if necessary to smooth out rough surfaces, *Primer SN* may be mixed with 16/30 mesh quartz silica sand at a rate of 2 parts of *Primer SN* per 1 part of sand.
3. Spread *Primer SN* using a brush, roller or squeegee. The preferred application method is using a squeegee to back-roll crosswise for the minimum required thickness.
4. Apply the entire contents of the mixed unit, working it aggressively into the concrete substrate to cover the substrate entirely with a wet film. Use a quality paintbrush for the hard-to-reach areas.
5. Ensure that the inside edges of construction, expansion, control and isolation joints are paintbrush-applied to receive a consistent film of *Primer SN*. Complete the joint treatment by placing backer rods and appropriate joint sealant before installing epoxy and polyurethane coatings.
6. When *Primer SN* is tack-free (see the "Waiting Time" data in the "Application Properties" table on page 3), remove loose, excess aggregate by blowing, sweeping or vacuuming.

## CLEANUP

- Before *Primer SN* cures to a hardened state (see the "Curing time" data in the "Application Properties" table on page 3), clean equipment using an appropriate solvent, such as xylene. Cured material can only be removed mechanically.

## PROTECTION

- Protect the applied *Primer SN* for 1.5 to 2 hours of curing and until covered by a subsequent polyurethane or epoxy resin flooring system.

**Product Performance Properties** at 73°F (23°C) and 50% relative humidity

Laboratory Tests	Results
Chemistry	2-part epoxy
Solid content	~ 100%
VOCs (Rule #1168 of California's SCAQMD)	34 g per L
Viscosity	1,000 cps
Density	1,42 g per mL
Consistency	Pourable liquid
Pull-off tensile strength (ASTM D4541) (100% failure in concrete substrate)	> 435 psi (3,0 MPa)
Mix ratio A : B (% mass)	80 : 20

**Shelf Life and Properties (before mixing)**

Shelf life	2 years in original, unopened container. Store at 41°F to 86°F (5°C to 30°C).
Color	Part A: Neutral beige Part B: Light yellow

Protect from freezing. Do not ship or store unless protection from freezing is available.

**Application Properties**

Pot life , 8.8 U.S. oz. (250 g) at:	
46°F (8°C)	3.5 hours
73°F (23°C)	1.5 hours
95°F (35°C)	0.75 hour
Waiting time (minimum) between coats at:	
46°F (8°C)	24 hours
73°F (23°C)	12 hours
95°F (35°C)	6 hours
Curing time at:	
46°F (8°C)	10 days
73°F (23°C)	7 days
95°F (35°C)	5 days

**Packaging**

Size
Kit: 3 U.S. gals. (11,4 L): Part A, Pail: 2.17 U.S. gals. (8,21 L) Part B, Jug: 0.83 U.S. gal. (3,14 L)

**Approximate Coverage\***

Substrate Conditions	Required Thickness and Associated Coverage
Concrete surface at CSP #3	9 to 15 mils of dry film thickness (DFT) or at a rate of 107 to 178 sq. ft. per U.S. gal. (2,62 to 4,36 m <sup>2</sup> per L)

\* Coverage varies depending on the desired build as well as the profile and porosity of the substrate.

## RELATED DOCUMENTS

Installation Guide: *Mapefloor*  
installation instructions

IGC1113\*

\* At [www.mapei.com](http://www.mapei.com)

Refer to the SDS for specific data related to VOCs, health and safety, and handling of product.

## STATEMENT OF RESPONSIBILITY

Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith.

**ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

We proudly support the following industry organizations:



### MAPEI Headquarters of the Americas

1144 East Newport Center Drive  
Deerfield Beach, Florida 33442  
1-888-US-MAPEI (1-888-876-2734) /  
(954) 246-8888

### Technical Services

1-800-992-6273 (U.S. and Puerto Rico)  
1-800-361-9309 (Canada)

### Customer Service

1-800-42-MAPEI (1-800-426-2734)

### Services in Mexico

0-1-800-MX-MAPEI (0-1-800-696-2734)

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