

## PRODUCT DESCRIPTION:

**EPOXAL 100 PRIMER** is a solvent-free, two-component, 100% solids low viscosity epoxy coating. This is a specially formulated primer for concrete and wood flooring as well as steel substrates. It is also able to cure at low temperatures and under high humidity.

## PRODUCT FEATURES:

- 100% solids formulation means this is an odourless primer formulated without solvents.
- Very low viscosity ensures excellent surface wetting and filling of air voids and capillary holes in concrete and steel substrates.
- Long recoat window (one week).
- Upgrading concrete substrates to give high tensile adhesive strength.
- Excellent penetrating sealer or as a direct metal primer, without the addition of cosolvents.
- Good resistance to thermal shock.
- Low temperature curing.

## TYPICAL USES:

- Used in conjunction with other NPC flooring systems as a primer.
- Light to medium duty industrial floors, (i.e. warehouse or production areas subject to forklift traffic).
- Sanitary environments subjected to constant cleaning, (i.e. laboratories, clean rooms, food production areas, washrooms).

- Commercial and retail flooring.
- Steel lining and penetrating sealer for rusted steel

## TECHNICAL DATA

<b>POT LIFE:</b>	30 minutes @ 21°C(70°F) (decreases at higher temperatures)
<b>PACKAGING:</b>	1 Gal, 4 Gal. & 20 Gal. Units.
<b>SHELF LIFE:</b>	1 year in unopened container @ minimum 20°C(68°F)
<b>COLOUR:</b>	Clear
<b>SHEEN:</b>	Gloss
<b>MIXING RATIO:</b>	3:1 Resin to Catalyst (by volume)
<b>VOLUME SOLIDS:</b>	100%
<b>THEORETICAL COVERAGE:</b>	1604 sqft/US Gal. @ 1 mil DFT
<b>RECOMMENDED DFT:</b>	5 to 7 mils(primer)
<b>CURE TIME @21°C(70°F):</b>	Recoat-6-8 hrs Light Traffic- 14 hrs Full Cure-7 days
<b>MIXED VISCOSITY @ 25°C(77°F):</b>	250 ±50 CPS
<b>CLEANUP:</b>	NPC Epoxal Thinners

## PERFORMANCE DATA

Typical Performance After 7 Days Cure @25°C(77°F)

**SUBSTRATE:** Unsanded and solvent wiped mild steel panels and concrete tile with DFT of 2 mils and 3 mils respectively.

**HARDNESS:** 3B (Pencil)

**BYK-CROSS HATCH**

**ADHESION TEST:** Gt 0/5B

**BYK-GARDNER**

**IMPACT TESTER:** Direct 35  
inches/2lbs.weight  
Reverse 30  
inches/2lbs.weight

**BYK-GARDNER  
MANDREL BENDING**

**TESTER:** ½ inch , Pass

## SURFACE PREPARATION:

### New Concrete Preparation:

All surfaces to be coated must be clean, dry and free of all contaminants. New concrete must be cured a minimum of 28 days with no more than 3% moisture content. Any curing or hardening compounds, form oils, release agents or laitance must be removed by means of mechanical abrasion. Shot blasting or diamond grinding are the recommended methods. These two means of mechanical abrasion will clean the surface and open the pores of the concrete to allow maximum penetration of the primer. Ensure the methods of mechanical abrasion are dust-free.

### Existing Concrete Preparation:

Ensure all loose concrete is removed, using a scarifier, diamond grinder, bush hammer or other methods. Remove any contamination, including grease and oil using an industrial cleaner. (Consult your NPC representative for recommended cleaners) Prepare the entire floor by method of a shot blaster, or diamond grinder. Patch any uneven or damaged concrete using

“NPC Epoxal 100 Patch” or consult your NPC representative for further instructions.

Existing coated surfaces must be intact and tightly bonded to substrate below. If stability of existing coating is in question, test a small section and check for lifting. Hard or glossy surfaces must be abraded to improve adhesion performance. *NPC will not warrant the application of Epoxal coatings over an existing paint or urethane.*

### Wood Preparation:

All wood surfaces to be coated must be clean, dry and free of all contaminants. The wood surface must be very rigid, with no possible movement. Fill any voids, or seams with NPC “Epoxal 100 Patch”

## PRIMING:

**EPOXAL 100 PRIMER** is a suitable primer for most applications over concrete. Although **EPOXAL 100 PRIMER** has excellent moisture tolerance, if the concrete substrate has recently been subjected to moisture, we recommend Epoxal 100 DCP. *(Please consult your NPC representative for further details about Epoxal 100 DCP.)*

Apply the for mentioned primers at a spread rate of 5-7 mils. If the spread rate is less than 5 mils, the substrate may not be properly sealed. If the spread rate is greater than 7 mils it increases the probability of bubbles caused by out gassing.

## MIXING:

***EPOXAL 100 PRIMER is always mixed at a ratio of 3 Parts A to 1 Part B by volume.***

**EPOXAL 100 PRIMER** is supplied in different quantities. 1 Gal. units can be mixed in the original container by adding the Part B into the Part A. 4 Gal. units can be mixed in a clean 5 Gal. container by adding the Part B into the Part A. 15 Gal. units must be mixed in smaller quantities. Ensure Part A is premixed, then measure accurately by volume 1 Part B into 3 Parts A in a clean mixing container.

***Always mix the two components for a full 3 minutes with a jiffy mixer.***

## APPLICATION:

- Mix the material according to instructions provided.
- Pour the mixed material on the prepared floor immediately.
- Spread over the desired area using a rubber squeegee or flexible trowel to achieve uniform thickness. Brush any edges around walls or permanent objects.
- Saturate a medium nap roller and back roll the material to remove any squeegee lines and provide an aesthetically pleasing finish.
- Allow coating to cure.

***For a proper bond additional coats must be applied within 24-72 hours after the completion of the first coat, depending on temperature.*** If this window is surpassed, mechanical abrasion must be used to prepare the coating before any further coats. NPC recommends **EPOXAL 100 PRIMER** be applied at 5-7 mils. This will produce a

pinhole free surface. If there are any pinholes, an additional coat should be applied.

***Do not wait more than 10 minutes between applying mixes of material to the floor.***

Waiting longer between mixes may cause problems with working properties.

## CURING:

At a temperature of 22<sup>0</sup>C(72<sup>0</sup>F), **EPOXAL 100 PRIMER** will be tack free within 6-8 hours. It will support light traffic at 24 hours and will reach full cure and chemical resistance in 7 days.

## LIMITATIONS:

- This product must be applied to a substrate with a minimum temperature of 4<sup>0</sup>C(39<sup>0</sup>F).
- This product will amber if it is under prolonged ultra violet light.
- This product is not recommended for areas that are exposed to severe thermal shock.
- Working time and cure times are very dependant on temperature.
- Maintain a constant temperature before and during application period, and until coating is cured.