

## PRODUCT DESCRIPTION:

EPOXAL 100SL is a solvent-free, three-component, thermosetting, self-leveling, 100% solids epoxy. Designed to perform with excellent abrasion resistance and durability, EPOXAL 100SL is ideal as a general service concrete floor coating system.

## PRODUCT FEATURES:

- 100% solids formulation means this is an odourless product formulated without solvents.
- EPOXAL 100SL is easily applied by pin rake and spike roller.
- May be applied to previously coated surfaces which are properly prepared.
- Hard and abrasion resistant seamless coating, will stand up to industrial vehicular traffic and can still be easily cleaned and maintained.
- Good resistance to concentrated nitric acid.

## TYPICAL USES:

- 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).

### Note:

*The product data and curing properties displayed on these pages for EPOXAL*

*100SL are based on Epoxal 100WH. Epoxal 100WH is the epoxy liquid most commonly used for this system.*

## TECHNICAL DATA

<b>POT LIFE:</b>	30 minutes @ 21°C(70°F) (decreases at higher temperatures)
<b>PACKAGING:</b>	3 Gal.Units & Dry Fillers
<b>SHELF LIFE:</b> container	1 year in unopened @ minimum 20°C(68°F)
<b>COLOUR:</b>	Colours
<b>SHEEN:</b>	Gloss
<b>MIXING RATIO:</b>	2:1:2 100WH Resin:100WH Catalyst::Fillers (by volume)
<b>VOLUME SOLIDS:</b>	100%
<b>THEORETICAL COVERAGE:</b>	1604 sqft/US Gal @ 1 mil DFT
<b>RECOMMENDED DFT:</b> primer)	80 to 120 mils(incl..
<b>CURE TIME</b> @22°C(72°F):	Recoat 10-12 hrs Light Traffic 24 hrs Full Cure 7 days
<b>MIXED VISCOSITY</b> (Liquids Only) @ 25°C(77°F):	1800 ±200 CPS (ASTM D445-83 )
<b>CLEANUP:</b>	NPC Epoxal Thinners

## PERFORMANCE DATA

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

**COMPRESSIVE STRENGTH:** 10,150 PSI( ASTM 695-85)

**TENSILE STRENGTH:** 2,950  
PSI(ASTM 695-85)

**TENSILE MODULUS:** 189 KSI( ASTM D638-86)

<b>TENSILE ELONGATION:</b>	8.0 % (ASTM D638-86 )
<b>FLEXURAL STRENGTH:</b>	3,910PSI (ASTM D790-86)
<b>FLEXURAL MODULUS:</b>	383KSI (ASTM D790-86)
<b>HARDNESS:</b>	82 ( SHORE D )
<b>ABRASION RESISTANCE:</b>	.033g ( ASTM D4060-90 )
<b>MAR RESISTANCE:</b>	1.0 Kg (ASTM D5178-91 )

## 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 100WH is a suitable primer for most applications over concrete. Other quality primers that are also acceptable for use with this system are Epoxal 100 Primer and 100 DCP. *(Please consult your NPC representative for further details about Epoxal 100 DCP.)*

Apply all of the for mentioned primers at a spread rate of 4-6 mils. If the spread rate is less than 4 mils, the substrate may not be properly sealed. If the spread rate is greater than 6 mils it increases the probability of bubbles caused by out gassing.

## MIXING:

*Epoxal 100 WH is always mixed at a ratio of 2 Parts A to 1 Part B by volume.* Always pre-mix the Part A (resin) component of the mixture thoroughly. Add the Part B (catalyst) and mix for 3 minutes.

*Epoxal 100SL is always mixed at a ratio of 2 Parts A to 1 Part B to 2 Parts C by volume.* EPOXAL 100SL is supplied in 3 Gal. units. Part A (resin) is supplied in a five gallon pail, which serves as a mixing pail. Always pre-mix the Part A component of the mixture thoroughly. Add the Part B (catalyst) into the Part A. Mix with a jiffy mixer for 1.5 minutes. Add the Part C (fillers) into the mixture and mix for an additional 1.5 minutes.

## APPLICATION:

NPC recommends a minimum of two coats, with the prime coat being 4-6 mils. The body coat should be applied at a thickness of 60-120 mils to provide a smooth uniform coat.

### Primer:

- Step 1. Mix the material according to instructions provided.
- Step 2. Pour the mixed material on the prepared floor immediately.
- Step 3. Spread over the desired area using a rubber squeegee or flexible trowel to achieve uniform thickness. Brush any edges around walls or permanent objects.
- Step 4. Saturate a medium nap roller and back roll the material to remove any squeegee lines and provide an aesthetically pleasing finish.

Step 5. Allow coating to cure.

This will produce a smooth pinhole free surface. If there are any pinholes, an additional primer coat should be applied.

***Do not wait more than 10 minutes between applying mixes of primer material to the floor.*** Waiting longer between mixes may cause problems with working properties and colour consistency.

### Body Coat:

- Step 1. Mix the material according to instructions provided.
- Step 2. Pour the mixed material on the prepared floor immediately.
- Step 3. Spread over the desired area using a pin rake to achieve uniform thickness.
- Step 4. Use a 1" pin roller and back roll the material to release any air that may have been entrained by mixing. ***Do not roll into material that has been applied to the floor for more than 10 minutes.***
- Step 5. Allow coating to cure.

***For a proper bond, the body coat must be applied within 24-48 hours after the completion of the primer coat, depending on temperature.*** If this window is surpassed, mechanical abrasion must be used to prepare the coating before any further coats. ***Do not wait more than 5 minutes between applying mixes of body coat material to the floor.*** Waiting longer between mixes may cause problems with working properties and colour consistency.

## CURING:

At a temperature of 22<sup>0</sup>C(72<sup>0</sup>F), **EPOXAL 100SL** will be tack free within 10-12 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 16<sup>0</sup>C(61<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.