

PRODUCT

DESCRIPTION:

EPOXAL STAIN is a solvent-free, two-component, translucent, decorative 100% solids epoxy coating system. It is designed to provide a unique appearance on each substrate to which it is applied. The characteristics of the substrate will appear through the stain and clear protective coatings. The resulting surface will be a translucent, stained, uneven look that is easily maintained. **EPOXAL STAIN** exhibits excellent abrasion resistance and durability, and is ideal as a decorative concrete and wood coating system. System series 4000.

PRODUCT FEATURES:

- Rustic translucent coating.
- Finish is very unique to each substrate.
- Can be applied over new and old concrete substrates.
- Can be applied to most cementitious surfaces, as well as plywood, OSB, or virtually any porous substrate.
- Good resistance to concentrated nitric acid.
- Available in any colour and many degrees of colour concentration, determined by pigment loading. The amount of pigment determines the extent of translucency.
- Optional satin finish.

TYPICAL USES:

- Restaurant and bar floors.
- Retail and commercial floors.

- Decorative accent colours for wall finishes over wood and concrete.
- Residential floors.
- Universities, schools, hospital floors.

TECHNICAL DATA

POT LIFE:	40 minutes @ 21°C(70°F) (decreases at higher temperatures)
PACKAGING:	3L, 3 Gal. and 15 Gal. Units.
SHELF LIFE: container	1 year in unopened @ minimum 20°C(68°F)
COLOUR:	Semi-transparent colours
SHEEN:	Gloss
MIXING RATIO:	2:1 100WH Stain resin to 100WH Catalyst (by volume)
VOLUME SOLIDS:	100%
THEORETICAL COVERAGE:	1604 sqft/US Gal @ 1 mil DFT
RECOMMENDED DFT:	Stain Coat: 5 - 7 mils DFT Clear Coat: 10 - 14 mils DFT
CURE TIME @22°C(72°F):	Recoat 10-12 hrs Light Traffic 24 hrs Full Cure 7 days
MIXED VISCOSITY @ 25°C(77°F):	1800 ±200 CPS (ASTM D445-83)
CLEANUP:	NPC Epoxal Thinners

PERFORMANCE DATA

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

COMPRESSIVE STRENGTH:	10,370 PSI(ASTM 695-85)
TENSILE STRENGTH:	6,860 PSI(ASTM 695-85)
TENSILE MODULUS:	189 KSI(ASTM D638-86)

TENSILE ELONGATION:	8.0 %(ASTM D638-86)
FLEXURAL STRENGTH:	10,610PSI (ASTM D790-86)
FLEXURAL MODULUS:	383KSI(ASTM D790-86)
HARDNESS:	82(SHORE D)
ABRASION RESISTANCE:	.033g (ASTM D4060-90)
MAR RESISTANCE:	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 30 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 STAIN is the primer for applications over concrete. The transparent stain is achieved by the prime coat over the prepared substrate. The prime coat material is loaded by weight with a solid colour epoxy. The amount of solid colour loading determines the transparency of the finish. Apply **EPOXAL STAIN** at a spread rate of 6 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 KS is always mixed at a ratio of 2 Parts A to 1 Part B by volume. Always premix the Part A (resin) component of the mixture thoroughly. EPOXAL STAIN is supplied in different quantities. 3L units can be mixed in the original container by adding the Part B into the Part A. 3 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 2 Parts A in a clean mixing container.

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

APPLICATION:

- Step 1.** Mix EPOXAL STAIN 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.
- Step 6.** Repeat this process for the second coat using EPOXAL 100 Clear.

For a proper bond additional coats must be applied within 24-48 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 a minimum of two coats, with the prime coat being 5-7 mils. The second coat should be applied at a thickness of 10--14 mils to provide a smooth uniform coat.

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 and colour consistency.

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

If a satin finish is required, apply two coats of 2K ACRYLIC URETHANE W.B. SATIN CLEAR. Refer to 2K ACRYLIC URETHANE W.B. Data page for installation instructions.

CURING:

At a temperature of 22⁰C(72⁰F), EPOXAL STAIN 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 16⁰C(61⁰F).
- 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.