

CNSL-BASED COATINGS GUIDE FORMULATIONS

WATERBORNE EPOXY FLOOR PRIMERS WITH PHENALKAMINE NX-8101

- Completely solvent free
- Fast cure and hardness development even at 10°C/80%RH
- Visible end of pot life
- Easily diluted with water once mixed with epoxy resin
- Excellent adhesion to dry and wet concrete
- Good compatibility with liquid epoxy and solid epoxy dispersion
- Good stain resistance to household and industrial chemicals
- No blush on surface

BIO-BASED EPOXY CURING
AGENTS

AMBIENT-CURE
EPOXY COATINGS

WATERBORNE EPOXY
FLOOR PRIMERS

Guide Formulation

Ingredients	Formulation 1 (Parts by weight)
Part A	
Liquid Epoxy (EEW=190)	85.93
Ultra LITE 513 ¹ (CNSL based diluent)	12.87
BYK 348 ² (wetting agent)	0.60
Surfynol DF-62 ³ (defoamer)	0.30
BYK 054 ² (defoamer)	0.30
Total	100.00
Part B	
NX-8101 ¹ (Curing Agent)	129.00
Part C	
Water	35.00

¹ Cardolite ²BYK ³Evonik

Formulation Properties

Properties	Formulation 1
VOC (gm/l)	1.91
% wt NVM	62.20
% wt Volatile	37.80
% vol NVM	60.41
% vol Volatile	39.59
% PVC	0
Amine/Epoxy	0.98

NX-8101 (Reference)

Properties	NX-8101
Color (Gardner)	≤10
Viscosity at 25°C (cPs)	15000-55000
Amine Value (mg KOH/g)	140-180
Cure Properties with LER (EEW 190) at 142 phr	
Gel time (min)	45
Linear Dry Hard at 25°C/5°C (hrs)	3/9

PROCESSING

Making Part A: mix the diluent and two defoamers into the liquid epoxy resin in a metal vessel with slow speed agitation, and gradually increase agitation speed to middle speed to obtain a uniform mixture. Turn off agitation before adding the leveling agent, and again increase agitation speed gradually for further mixing until the uniform mixture of Part A is obtained. Mix Part A and B together first, then gradually add Part C water with well stirring to obtain a uniform paint. **Please refer to each supplier's material safety data sheet (MSDS) for the most current safety and handling information.**

FORMULATION GUIDELINES

- Compatible with standard liquid epoxies (based on Bisphenol A or F).
- NX-8101 acts as an emulsifier for the epoxy. No additional emulsifiers are required.
- Reactive diluents (mono or di-functional) can be used without additional emulsifiers.
- Dispersants like Disperbyk 192 help with pigment wetting. The dispersant can be used in either the epoxy (PART A) or the curing agent (PART B) to aid in pigment dispersion.
- Defoamers like BYK 1640 and BYK 054 help with air release and surface appearance.
- NX-8101 systems can be pigmented in the part A or B.
- Temperature of NX-8101 should remain below 40°C during the pigment dispersion phase.

DISCLAIMER

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