

# CNSL-BASED COATINGS GUIDE FORMULATIONS



## FLOOR TOP COATS AND SELF-LEVELERS WITH PHENALKAMINES

- Excellent UV resistance (low yellowing and good gloss retention)
- Low viscosity (in benzyl alcohol)
- Excellent adhesion to dry concrete and primers
- Fast cure and hardness development
- No blush on surface
- Other related products for floor coatings:  
Solvent free: NC-558/NC-658, NX-2003(D), NX-5454(NS),  
NX-6019(NS), GX-6013, NX-5140  
Waterborne: NX-8101  
Top coats: NX-2009, UL 2009H  
Diluents: NC/UL 513

### BIO-BASED EPOXY CURING AGENTS

### AMBIENT-CURE EPOXY COATINGS

### FLOOR TOP COATS AND SELF-LEVELERS

### Guide Formulation

Ingredients	Formulation 1 (Parts by weight)
Part A	
Liquid Epoxy (EEW=190)	42.00
Ultra LITE 513 <sup>1</sup> (CNSL based diluent)	5.65
Anti-Terra U 100 <sup>2</sup> (dispersant)	0.33
BYK 085 <sup>2</sup> (defoamer)	0.30
Ti-Pure R-706 <sup>3</sup> (pigment)	10.95
Imsil A-25 <sup>4</sup> (filler)	14.00
Cimbar EX <sup>5</sup> (filler)	14.72
Minex 4 <sup>4</sup> (filler)	10.96
Dynol 604 <sup>6</sup> (defoamer)	0.55
BYK 361N <sup>2</sup> (leveling agent)	0.54
Total	100.00
Part B	
Ultra LITE 2009 <sup>1</sup> (Curing Agent)	22.90

<sup>1</sup>Cardolite <sup>2</sup>BYK <sup>3</sup>Chemours Company <sup>4</sup>Sibelco <sup>5</sup>Cimbar <sup>6</sup>Evonik

### Formulation Properties

Formulation 1 Properties	BzOH not solvent*	BzOH as solvent
VOC (gm/l)	0.10	97.73
% wt NVM	99.99	93.47
% wt Volatile	0.01	6.53
% wt Pigment	41.20	41.20
% vol NVM	99.99	91.13
% vol Volatile	0.01	8.87
% vol Pigment	19.11	19.11
% PVC	19.11	20.96
Pigment/Binder	0.70	0.79
Amine/Epoxy	1.00	1.00

\*First column does not consider benzyl alcohol as VOC.

### Ultra LITE 2009 Properties (Reference)

Properties	UL 2009
Color (Gardner)	≤2 (typical ≤1)
Viscosity at 25°C (cPs)	≤800 (typical ≤400)
Amine Value (mg KOH/g)	265-295
Gel time (EEW 190) at 50phr	34 min
Linear Dry Hard at 25°C	6 hours

## PROCESSING

Mix the diluent, dispersant and defoamer into liquid epoxy resin in a metal vessel (having water cooling system) with slow speed agitation until uniform. Turn on water cooling system to keep vessel temperature under 50°C. Add fillers and pigments into the liquid mixture one by one at middle speed agitation. After finishing the addition of all the fillers and pigments, gradually increase agitation speed to high, then continue the high speed agitation until obtaining a uniform paste. Add the leveling agent into the paste at middle speed of agitation until uniform.

**Please refer to each supplier's material safety data sheet (MSDS) for the most current safety and handling information.**

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