

Pigment Dispersions for Epoxy Coatings

Color Solutions

Chroma-Chem® EDC ND

General Information

The EDC ND Series has been designed to provide an effective way to tint most epoxy coatings, especially concrete protective floor coatings. These products use an epoxy resin with broad compatibility that produces a color system designed to provide excellent color performance in tinting or full pigmentation systems.

Key Benefits

The Chroma-Chem EDC ND Series pigment dispersions for epoxy applications consist of organic and inorganic pigments milled in a 100% solids epoxy. The resin has an EEW value of 185 to 192. These colorants use an additive package that ensures excellent color control and handling.

The EDC ND Series colorants are based on a bis-A epoxy resin. The colorants do not contain any modifiers, but are stabilized through a proprietary additive package to ensure excellent color control. These colorants are compatible with solvent containing and solvent-free 2K epoxy coatings.

Vibrantz Technologies can blend the masstone colorants to produce a single color pack that will match the final desired color in most epoxy coatings. The color packs can be packaged in multiple container types including drums, pails, gallons, or quarts to provide a means to color epoxy coatings on-site.



Properties

The EDC ND Series pigment loading is relatively high to ensure optimal coverage at lower colorant levels and to allow for strength adjustments in blended color packs. The colorants are formulated with a viscosity profile to ensure in-can stability of the masstone colors or any pre-blended color packs.

The tint strength of these colorants is controlled by weight to $\pm 5\%$ to ensure optimal tinting performance for in-plant tinting. The color difference is controlled to specification ranges that are set based on human perception of various color spaces.

Applications

The EDC ND Series is formulated for use in many industrial coatings including, but not limited to concrete protective coatings, high build terrazzo flooring, industrial maintenance paints, and other high performance protective coatings.

Compatibility

The EDC ND Series colorants are compatible with a solvent-based and solvent-free epoxy coatings. These colorants will also be compatible with diluents commonly used in epoxy coatings. However, the level of diluent can affect the performance of the colorants. Color control additives are recommended to be incorporated into the base prior to colorant addition.

Shelf Life

Proper handling is essential to maintain good quality. It is recommended that the colorants be mixed prior to use. Containers should be tightly sealed when not in use.

Shelf life on the EDC ND Series colorants is two years from the date of manufacture in unopened containers.

Product Code	Description	CI Name	% Pigment		% Resin		% Other Non-Volatiles		Specific Gravity	VOC ^a g/L	Pigment Lightfastness		Pigment Resistance	
			X Wt.	X Vol.	X Wt.	X Vol.	X Wt.	X Vol.			Mass	Tint	Acid	Alkali
EDC-02397	Lampblack ND	Black7	20.6	14.3	73	78.1	6.4	7.6	1.24	<10	N	N	N	N
EDC-10349	White ND	White 6	45.5	19	53.1	78.7	1.4	2.3	1.72	<10	N	N	N	N
EDC-20916	Black ND	Black 7	19.5	13.5	77.5	82.9	3	3.6	1.24	<10	N	N	N	N
EDC-20948	LV Black ND	Black 7	14.2	9.6	82.2	86.2	3.6	4.2	1.21	<10	N	N	N	N
EDC-30378	LV Blue ND	Blue 15:2	18	13.7	74.3	77.5	7.7	8.8	1.21	<10	N	N	N	N
EDC-40069	Burnt Umber ND	Brown 7	35	14.7	61.5	80.3	3.5	5	1.51	<10	N	N	N	N
EDC-50170	Green ND	Green 7	25	15.5	70	78.3	5	6.2	1.3	<10	N	N	N	N
EDC-60211	Orange ND	Orange 34	15	12.4	76	77.5	9	10.1	1.18	<10	A	A	N	N
EDC-70536	Red Oxide ND	Red 101	54	21.6	42	70.9	4	7.5	1.95	<10	N	N	N	N
EDC-70544	Red ND	Violet 19	16.5	12.7	81.5	85	2	2.3	1.21	<10	S	S	N	N
EDC-70561	LV Quindo Red ND	Violet 19	11	8.3	86.9	89.3	2.1	2.4	1.19	<10	S	S	N	N
EDC-70650	Red 170 ND	Red 170	20	17.7	75	76.7	5	5.6	1.18	<10	N*	S*	N	N
EDC-80448	Yellow Oxide ND	Yellow 42	42.8	17.3	50.5	72.2	6.7	10.5	1.65	<10	N	N	N	N
EDC-80482	Bismuth Yellow GS ND	Yellow 184	53.8	16.9	43.2	77.1	3	6	2.07	<10	N	N	N	N

^a Expected values based on formulation

Lightfastness and Resistance Key			
N	no bleed/discoloration	*	no Florida data, only Fadeometer
S	slight	**	no data
A	appreciable		

Lightfastness and Resistance information is provide for guidance purposes only.
 Source: NPIRI Raw Materials Data Handbook Volume 4 (© 2000)

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