

Pigment Dispersions for Water-based Coatings

Color Solutions

Chroma-Chem® UCD E

General Information

The UCD E Line colorants have been formulated for use in most alkaline water-based coatings. The colorants are based on a proprietary alkali-soluble acrylic resin that provides unmatched colorant performance in tinting of in-plant coating systems.

Key Benefits

The UCD E Line colorant vehicle consists of a low-molecular weight, automotive type, alkali-soluble acrylic resin dissolved in water. There are no added VOC's in these colorants. Most pigments are automotive type pigments with excellent lightfastness characteristics.

The dispersing resin provides excellent pigment wetting. This feature makes possible high pigment concentrations at relatively low millbase solids levels. The result is line of colorants with excellent color performance with no negative impact of the final properties of the coating.

The tint strength of these colorants is controlled by volume to $\pm 2\%$ to ensure optimal tinting performance in volumetric dispensing equipment. The density of the colorants are also tightly controlled to provide consistent in-plant tinting capabilities.



Properties

The UCD E Line colorants have an alkaline pH and are suitable for use in both nonionic and anionic paint systems. The pH of the coating should be higher than 7.5. Benefits of these colorants in industrial and in-plant architectural coatings also includes improved water resistance and block resistance.

Due to the lack of glycols, these colorants will dry quickly. Since the resin is alkali-soluble, care must be taken to limit air exposure as the colorants may dry and flake if not handled properly. The resin is completely insoluble in water after the resin is dry.

Applications

The UCD E line is formulated for use in most water-based industrial coatings including, but not limited to, automotive OEM, concrete protection, general industrial finishes, general OEM, industrial maintenance, integrally colored concrete, marine, and protective coatings.

Compatibility

The UCD E colorants are compatible with most coating systems based on acrylic, acrylic/PVA emulsions, water-reducible polyester/epoxy, water-soluble alkyd, and urethane. These colorants are compatible with very low VOC and VOC coating systems.

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. Repacking the colorant into a smaller container should be considered if the colorant level in the container is less than 20% of the original amount and will be stored for an extended period of time.

Shelf life on the UCD E line colorants is three years from the date of manufacture in unopened containers.

Product Code	Description	CI Name	% Pigment		% Non-Volatiles		% 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
UCD-1106E	Titanium Dioxide	White 6	65.0	32.1	6.5	11.6	28.5	56.3	1.97	<10	N	N	N	N
UCD-1507E	Carbon Black	Black 7	33.7	22.4	11.7	12.4	54.6	65.2	1.19	<10	N	N	N	N
UCD-1530E	Jet Carbon Black	Black 7	7.3	4.3	20.6	19.1	72.1	76.6	1.06	<10	N	N	N	N
UCD-1625E	Lampblack	Black 7	28.0	18.2	11.5	11.5	60.5	70.3	1.16	<10	N	N	N	N
UCD-1635E	Medium Color Black	Black 7	40.0	27.5	11.5	12.6	48.5	59.9	1.23	<10	N	N	N	N
UCD-4775E	Ultramarine Blue	Blue 29	46.0	27.0	9.7	11.8	44.3	61.2	1.38	<10	N*	N*	A	N
UCD-4820E	Phthalo Blue GS	Blue 15:3	37.0	26.9	11.4	11.7	51.6	61.4	1.19	<10	N	N	N	N
UCD-4830E	Phthalo Blue RS	Blue 15:2	37.0	26.2	11.3	11.7	51.7	62.1	1.20	<10	N	N	N	N
UCD-5150E	Phthalo Green BS	Green 7	47.0	29.8	10.9	13.0	42.1	57.2	1.35	<10	N	N	N	N
UCD-5166E	Phthalo Green YS	Green 36	46.6	23.3	10.3	13.3	43.1	63.4	1.47	<10	N	N	N	N
UCD-5668E	Hansa Yellow 74	Yellow 74	40.0	34.4	11.5	11.4	48.5	54.2	1.12	<10	N	A	N	N
UCD-5675E	Diarylide Yellow	Yellow 14	37.5	29.0	11.4	11.8	51.1	59.2	1.16	<10	S	A	N	N
UCD-5696E	Organic Yellow	Yellow 151	49.0	38.8	8.9	9.6	42.1	51.6	1.22	<10	N*	N*	N	A
UCD-5721E	Transparent Yellow Oxide	Yellow 42	28.0	9.5	14.0	15.9	58.0	74.6	1.29	<10	N	N	N	N
UCD-5740E	High-Strength Yellow	Yellow 83	35.0	27.3	10.8	10.9	54.2	61.8	1.14	<10	S	A	N	N
UCD-5750E	Yellow Oxide	Yellow 42	56.0	24.8	8.3	12.8	35.7	62.4	1.75	<10	N	N	N	N
UCD-5762E	Diarylide Yellow RS	Yellow 83	50.0	42.2	8.5	8.9	41.5	48.9	1.18	<10	N	N	N	N
UCD-5797E	Quinacridone Gold	Orange 48	15.5	10.6	13.9	13.3	70.6	76.1	1.08	<10	N	N	N	N
UCD-5832E	Raw Umber	Brown 7	32.0	12.8	14.9	17.4	53.1	69.8	1.31	<10	N	N	N	S
UCD-5861E	Burnt Umber	Brown 7	32.5	12.1	14.2	16.7	53.3	71.2	1.33	<10	N	N	N	N
UCD-5891E	Transparent Red Oxide	Red 101	38.0	13.6	12.1	15.4	49.9	71.0	1.42	<10	N	N	N	N
UCD-5940E	DNA Orange	Orange 5	52.0	38.8	7.7	8.9	40.3	52.3	1.30	<10	S	A	N	N
UCD-6002E	Perinone Orange	Orange 43	41.6	28.0	9.7	10.9	48.7	61.1	1.25	<10	N*	N*	N	N
UCD-6004E	Fast Orange	Orange 36	52.0	40.5	7.8	8.8	40.2	50.7	1.26	<10	N*	N*	N	N
UCD-6012E	Organic Orange	Orange 34	52.0	43.6	8.0	8.5	40.0	47.9	1.20	<10	A	A	N	N
UCD-6080E	Red Oxide	Red 101	60.0	23.9	8.6	14.9	31.4	61.2	1.95	<10	N	N	N	N
UCD-6470E	Quinacridone Magenta	Red 122	30.0	23.2	12.0	11.9	58.0	64.9	1.12	<10	N	N	N	N
UCD-7942E	Toluidine Red	Red 3	41.9	33.9	11.0	11.5	47.1	54.6	1.16	<10	N	A	N	N
UCD-7949E	Organic Red	Red 170	42.5	33.7	10.6	11.1	46.9	55.2	1.18	<10	N*	S*	N	N
UCD-7975E	Fast Red	Red 187	30.0	23.2	13.0	13.0	57.0	63.8	1.12	<10	N*	S*	N	N
UCD-8030E	Quinacridone Red	Violet 19	35.0	23.7	10.6	11.1	54.4	65.2	1.20	<10	S	S	N	N
UCD-8097E	Red Oxide BS	Red 101	60.0	24.0	10.1	16.1	29.9	59.9	2.00	<10	N	N	N	N
UCD-8406E	Carbazole Violet	Violet 23	35.0	26.6	12.1	12.3	52.9	61.1	1.15	<10	N	S	N	N
UCD-8443E	Quinacridone Violet	Violet 19	35.0	26.8	10.6	10.3	54.4	62.9	1.15	<10	S	S	N	N

^aExpected 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)

The information and recommendations contained herein are based on data we believe to be reliable and does not imply any warranty or performance guarantee, as conditions and methods of use of our products are beyond our control. The data herein is determined using Vibrantz’s standard test methods. Hazard and safety information with respect to this product is available in the applicable SDS. Vibrantz will not be liable under any circumstance for consequential or incidental damages, including but not limited to, lost profits resulting from the use of our products