

+ Chroma-Chem® 50-990 (IRR)

Infrared Reflective Pigment Dispersions for Water-based Coatings

The 50-990 Series colorants have been formulated for use in most water-based coatings. These colorants listed in this document are formulated using infrared reflective pigments for use in “Cool” coatings.

► Key Benefits

The 50-990 Series are very-low VOC pigment dispersions consisting of infrared reflective pigments milled in a blend of water and additives. This package produces colorants with compatibility in a wide range of water-based chemistries. To better meet current VOC regulations, these colorants do not contain any added VOC's and are glycol free.

Since the 50-990 Series colorants are not based on an alkali-soluble resin, they will be compatible with coatings systems having a wider pH range compared to many water-based colorants. While colorants based on alkali-soluble resin can only be used in systems with a pH around 8 to 10, these colorants will be compatible with coatings having slightly acidic or alkaline characteristics.

These colorants are formulated at maximum pigment loading to ensure minimal effects on the final coating properties. The formulation of each colorant within the series was developed to ensure the stability and handling properties were maintained.

► Properties

These colorants offer the coatings formulator a product line with low VOC levels, excellent pigment development, and good rheological characteristics. Other benefits include high pigment loading for excellent color control and economy of use.

The tint strength of these colorants is controlled by weight to +/- 3% to ensure optimal in-plant tinting performance. Color difference is also controlled to ensure lot-to-lot consistency.

► Applications

The colorants in this series are formulated for use in infrared reflective water-based industrial coatings including, but not limited to, automotive interior OEM, industrial maintenance, marine, wood, coil, general OEM, leather finishes, and other protective coatings.

► Compatibility

These colorants are compatible with most coating systems based on acrylic, latex, water-based epoxy, water borne urethane and hybrid systems. These colorants are compatible with VOC and VOC-free systems. In general, these colorants will perform well in systems having a pH of 4.5 -9.5.

► 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.

These products must be kept from freezing and stored at temperatures above 32° F (0° C). Shelf life on these colorants in unopened containers is 1 year from the date of manufacture.



Product Code	Description	CI Name	% Pigment		% Non-Volatiles		% VOC		% Water		Specific Gravity	VOC ^a g/L	Pigment Lightfastness		Pigment Resistance	
			X Wt.	X Vol.	X Wt.	X Vol.	X Wt.	X Vol.	X Wt.	X Vol.			Mass	Tint	Acid	Alkali
50-990-02296R	IR Black YS	Green 17	68.7	30.2	7.8	15.9	0.0	0.0	23.5	53.9	2.28	<10	N	N	N	N
50-990-02355R	775 IR Black	Green 17	68.9	30.4	9.9	20.8	0.1	0.2	21.1	48.6	2.29	<10	N	N	N	N
50-990-02364R	IRR Black	Green 17	68.7	30.0	8.0	16.2	0.0	0.0	23.3	53.8	2.30	<10	N	N	N	N
50-990-02380R *	Black 10201	Proprietary	67.3	23.4	8.4	17.5	0.5	1.2	23.8	57.9	2.43	30	**	**	**	**
50-990-20957R*	Black IRR (YS)	Proprietary	69.3	31.1	10.6	22.1	0.4	0.9	19.7	45.9	2.32	16	**	**	**	**
50-990-20968R	Black IRR	Black 31	24.6	18.9	7.1	6.6	0.1	0.1	68.2	74.4	1.09	<10	**	**	**	**
50-990-30385R	Bright Blue IRR	Blue 28	69.4	35.2	7.2	13.9	0.0	0.0	23.4	50.9	2.17	<10	N	N	N	N
50-990-40092R	Brown IRR	Brown 23	41.0	30.6	6.7	7.3	0.0	0.0	52.3	62.1	1.18	<10	N	S	N	N
50-990-50186R	Colbalt Green IRR	Green 26	70.6	32.1	9.6	21.2	0.0	0.1	19.8	46.6	2.35	<10	N	N	N	N
50-990-50197R	Kelly Green IRR	Green 50	64.5	27.1	7.5	13.9	0.0	0.0	28.0	59.0	2.10	<10	N	N	N	N
50-990-50214R*	High IR Green	Proprietary	63.8	26.2	8.7	15.2	0.1	0.2	27.4	58.4	2.13	<10	**	**	**	**
50-990-70567R	Red IRR	Red 101	60.9	23.6	13.1	24.5	0.1	0.2	25.9	51.7	1.99	<10	N	N	N	N
50-990-80486R	Yellow IRR	Yellow 53	55.3	21.2	11.3	18.6	0.4	0.8	33.0	59.4	1.80	19	N	N	N	N
50-990-80487R	Golden Yellow IRR	Brown 24	65.9	22.3	10.5	22.7	0.1	0.3	23.5	54.7	2.32	<10	N	N	N	N

^a Typical values based on ASTM 6886
 * Not exportable outside of the USA

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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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