

Color shades

BASF pigments for packaging inks

Products	Printed on paper	Printed on metal foil
<p>Cromophtal® Violet D 5700* (old name: Cromophtal® Violet B)</p> <p>P.V. 37 dioxazine violet</p>		
<p>Cromophtal® Violet D 5800 (old name: Cromophtal® Violet GT)</p> <p>P.V. 23 dioxazine violet</p>		
<p>Heliogen® Blue D 6700 T</p> <p>P.B. 15:6 Cu phthalocyanine blue</p>		
<p>Heliogen® Blue D 7079</p> <p>P.B. 15:3 Cu phthalocyanine blue</p>		
<p>Heliogen® Blue D 7086</p> <p>P.B. 15:3 Cu phthalocyanine blue</p>		

Color patterns are flexo-printed at a concentration of 6 % pigment on black & white HI-FI coat paper and vinyl-lacquered aluminium; 30 m/min printing speed

Fullshade (100 %):
1st print run at 120 lines/cm (9 gr/m²)
2nd print run at 100 lines/cm (10 gr/m²)

Graduation (75 %):
one print run adjusted to measured optical density



Applications							Solvent	Water	UV	Properties
offset	metal deco	gravure	flexo	screen	digital-inkjet	digital electrophotography				
■ ■	■ ■	■ ■	■ ■	■	■	■	■ ■	■	■ ■	strong, red-shade dioxazine violet with good dispersibility; high-performance replacement for basic dye complexes
■ ■	■ ■	■ ■	■ ■	■ ■	■	■	■ ■	■	■ ■	all-round product with high compatibility in almost all solvent based systems; best reddish shade; high transparency, high gloss, multi-purpose
■ ■	■ ■	■ ■	■ ■	■ ■			■ ■	■ ■	■ ■	highly transparent phthalocyanine blue; unique shade, most reddish Cu phthalocyanine grade; abrasion free
■ ■	■ ■	■ ■	■ ■	■ ■			■	■ ■	■ ■	readily dispersable, high color strength, good flow properties
■ ■	■ ■	■ ■	■ ■	■ ■	■	■	■	■ ■	■ ■	standard process cyan blue with high strength and transparency

■ ■ recommended
■ limited suitable

* DINCertco and Vincotte certified the products according to EN 13432

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Heliogen® Blue D 7088 (old name: Irgalite® Blue GLO) P.B. 15:3 Cu phthalocyanine blue		
Heliogen® Blue D 7092 P.B. 15:3 Cu phthalocyanine blue		
Heliogen® Blue D 7110 F (old name: Irgalite® Blue GLV0) P.B. 15:4 Cu phthalocyanine blue		
Heliogen® Blue D 7490* P.B. 16 metal free phthalocyanine blue		
Heliogen® Green D 8725 P.G. 7 Cu phthalocyanine green, halogenated		
Heliogen® Green D 8730 P.G. 7 Cu phthalocyanine green, halogenated		

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Applications							Solvent	Water	UV	Properties
offset	metal deco	gravure	flexo	screen	digital-inkjet	digital electrophotography				
■ ■	■ ■	■ ■	■ ■	■ ■	■	■	■	■ ■	■	greenish shade, excellent flow, multi-purpose; excellent dispersibility and high color strength
■ ■	■ ■	■	■	■			■	■	■ ■	super dispersion and low viscosity
	■ ■	■ ■	■ ■	■	■ ■	■	■ ■	■	■ ■	industrial standard P.B. 15:4, benchmark for gravure ink; greenish shade blue; suitable for most solvent based resin systems; best rheology, gloss, transparency, performance and color strength
■ ■	■ ■	■ ■	■ ■	■ ■			■	■ ■	■ ■	first choice when metal free inks are required
■		■ ■	■ ■	■ ■			■ ■		■ ■	green with excellent flow, multi-purpose; excellent dispersibility and high color strength
■ ■	■ ■	■ ■	■ ■	■ ■	■	■	■	■ ■	■ ■	universal grade for all ink types

■ ■ recommended
■ limited suitable

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Physical data and fastness properties

Current name	Former name	Colour index	Chemistry
Paliotol® Yellow D 0960		P.Y. 138	quinophthalone
Cromophtal® Yellow L 0990	Cromophtal® Yellow 8GN	P.Y. 128	azo condensation
Cromophtal® Yellow D 1040	Cromophtal® Yellow 3G	P.Y. 93	azo condensation
Cromophtal® Yellow L 1061 HD	Irgazin® Yellow 2088	P.Y. 151	benzimidazolone
Paliotol® Yellow D 1155		P.Y. 185	isoindoline
Irgalite® Yellow D 2175	Irgalite® Yellow D541G	P.Y. 14	diarylide o-toluidine
Cromophtal® Yellow D 1500	Cromophtal® Yellow GR	P.Y. 95	azo condensation
Irgalite® Yellow D 1745	Irgalite® Yellow B3B0	P.Y. 83	diarylide
Paliotol® Yellow D 1819		P.Y. 139	isoindoline
Irgazin® Yellow L 2060	Irgazin® Yellow 3RLTN	P.Y. 110	isoindolinone
Cromophtal® Orange K 2960	Cromophtal® Orange GP	P.O. 64	benzimidazolone
Irgalite® Orange D 2980	Irgalite® Orange F2G	P.O. 34	diarylide pyrazolone
Cromophtal® Scarlet D 3430	Cromophtal® Scarlet RT	P.R. 166	azo condensation
Cromophtal® Scarlet D 3540	Cromophtal® Scarlet RN	P.R. 166	azo condensation
Cromophtal® Red D 3635	Cromophtal® Red BT	P.R. 144	azo condensation
Cromophtal® Red D 3890	Cromophtal® Red BRN	P.R. 144	azo condensation
Irgazin® Red D 3656 HD	Cromophtal® Red 2030 (SA)	P.R. 254	DPP
Irgalite® Red D 3785	Irgalite® Red C2B	P.R. 48:2	azo 2B toner (Ca)
Irgalite® Rubine D 4240	Irgalite® Rubine 4BGL	P.R. 57:1	4B toner (Ca)
Irgalite® Rubine D 4242	Irgalite® Rubine 4BL	P.R. 57:1	4B toner (Ca)
Irgalite® Rubine D 4280	Irgalite® Rubine 4BV	P.R. 57:1	4B toner (Ca)
Cinquasia® Pink D 4450	Cromophtal® Pink PT (SA)	P.R. 122	quinacridone

Physical data				Resistance to solvents				Print light fastness
density	bulk volume (L/Kg)	specific surface (m ² /g)	oil absorption (g/100 g)	water	ethanol	ethyl acetate	methyl-ethyl ketone (MEK)	
1.82	2.5	24	28	4 - 5	4 - 5	4 - 5	4	7
1.49	4	82	62	5	4 - 5	4 - 5	4 - 5	7 - 8
1.45	3.8	82	65	5	5	5	4 - 5	7
1.54	3.2	26	50	5	4 - 5	5	4 - 5	7 - 8
1.49	4	36	52	4 - 5	4 - 5	4 - 6	4 - 5	7
1.6	4.4	18	23	5	5	3	3	4
1.41	4.3	57	70	5	5	4 - 5	4 - 5	6 - 7
1.5	4.1	11	33	5	5	4	4	7
1.6		55	51	4 - 5	3	2 - 3	2 - 3	7
1.8	2.2	27	38	5	4 - 5	4	3 - 4	7 - 8
1.6	2.8	27	60	5	4 - 5	5	5	7
1.4	6.2	61	64	5	4	4	3	6
1.42	3.7	54	46	5	4 - 5	4	3 - 4	7 - 8
1.49	5.1	29	55	5	4 - 5	4 - 5	4 - 5	7 - 8
1.5	4.3	68	52	5	4 - 5	4	3 - 4	7
1.49	3.5	34	63	5	4 - 5	4 - 5	4 - 5	7 - 8
1.67	5.6	27	42	5	4 - 5	4 - 5	4 - 5	7 - 8
1.68	4.4	49	52	5	3 - 4	4	3 - 4	6
1.64	2.8	65	72	2	3	4	4	6
1.63	2.8	69	72	4	4	4 - 5	4	6
1.63	2.5	86		5				5 - 6
1.47	6.8	63	65	5	3	3 - 4	3 - 4	7 - 8

Physical data and fastness properties

Current name	Former name	Colour index	Chemistry
Cinquasia® Magenta L 4540	Cinquasia® Magenta RT-355-D	NA	quinacridone
Cromophtal® Violet D 5700	Cromophtal® Violet B	P.V. 37	dioxazine violet
Cromophtal® Violet D 5800	Cromophtal® Violet GT	P.V. 23	dioxazine violet
Heliogen® Blue D 6700 T		P.B. 15:6	Cu phthalocyanine blue
Heliogen® Blue D 7079		P.B. 15:3	Cu phthalocyanine blue
Heliogen® Blue D 7086		P.B. 15:3	Cu phthalocyanine blue
Heliogen® Blue D 7088	Irgalite® Blue GLO	P.B. 15:3	Cu phthalocyanine blue
Heliogen® Blue D 7092		P.B. 15:3	Cu phthalocyanine blue
Heliogen® Blue D 7110 F	Irgalite® Blue GLVO	P.B. 15:4	Cu phthalocyanine blue
Heliogen® Blue D 7490		P.B. 16	metal free phthalocyanine blue
Heliogen® Green D 8725		P.G. 7	Cu phthalocyanine green, halogenated
Heliogen® Green D 8730		P.G. 7	Cu phthalocyanine green, halogenated

Test methods

BASF pigments for packaging inks

Density (DIN 51757)

Density was determined at 20 °C using the helium pycnometer and is expressed in g/cm³. Helium was used as the test gas since air and nitrogen can be absorbed into the pigment surfaces.

Bulk volume

Bulking volume was measured by tamping a specified weight of pigment to constant volume under moderate pressure. The test was based on our internal standard operating procedure.

Specific surface

Specific surface was measured by the nitrogen adsorption method described by BET and is expressed by m²/g (Brunauer, Emmet, Teller, "Journal Amer. Chem. Soc." 57, 1954)

Oil absorption (DIN 53199)

Oil absorption was determined by the spatula method as expressed in grams of linseed oil per 100 grams of pigment.

Light fastness ISO 12040:1997 (E)

A test piece was exposed, along with blue wool references, to xenon arc light. Light fastness was evaluated by noting the blue wool standard, which had undergone the same color change as the test print equivalent to ISO Gray Scale 3 and ISO Gray Scale 4 for higher light fastness. Determined for full shade.

Solvent resistance

Pigment is weighed into a filter which is then inserted into the respective solvent for 24h at room temperature. The test was based on our internal standard operating procedure.

Physical data				Resistance to solvents				Print light fastness
density	bulk volume (L/Kg)	specific surface (m ² /g)	oil absorption (g/100 g)	water	ethanol	ethyl acetate	methyl-ethyl ketone (MEK)	
1.57	2.3	75	66	5	4	4 - 5	4 - 5	7 - 8
1.35	2.9	61	52	5	4 - 5	4 - 5	4	7 - 8
1.46	2.8	58	49	5	4 - 5	4	4	7 - 8
1.57		58	40	5	5	5	5	7 - 8
1.59		62	59	5	5	5	5	7 - 8
1.62		68	34	5	4 - 5	5	4 - 5	7 - 8
1.62	3.4	51	42	5	4 - 5	4 - 5	4	7 - 8
1.63		70	56	5	4 - 5	5	4 - 5	7 - 8
1.59	2.8	49	41	5	3	4 - 5	4	7 - 8
1.45		72		4	4	4 - 5	4	7 - 8
2.1		61		5	2	3	3	7 - 8
2.2		60	28	5	5	4	4	7 - 8

