




PHYSICAL PROPERTIES				PIGMENT POWDERS											
	Specific Gravity	Bulk Volume (litres/kg)	Oil Absorption (gm/100gm)		Reagents (1 - 5 Scale)				Solvents						
				pH of 2% Extract	Water	5% Acid (HCl)	5% Alkali (NaOH)	Lime	Ethanol	N-Butanol	N-Butyl Acetate	M.E.K.	White spirit	Xylene	Mixed NC Solvents
Phthalocyanine Alpha Blue 15:0 Pigment Blue 15:0 C. I. No. 74160	1.6	6.0	35 ±2	6.8	5	5	5	5	5	5	4	4	5	4	4
Pigment Alpha Blue15:1 Pigment Alpha Blue 15:1 C. I. No. 74160:1	1.6	6.0	35 ±2	6.8	5	5	5	5	5	5	4	4	5	4	4
Phthalocyanine Beta Blue 15:3 Pigment Blue 15:3 C. I. No. 74160:3	1.4	6.5	40 ±2	7.2	5	5	5	5	5	5	5	5	5	5	5
Phthalocyanine Beta Blue 15:4 Pigment Blue 15:4 C. I. No. 74160:4	1.6	6.5	40 ±2	7.2	5	5	5	5	5	5	5	5	5	5	5
Phthalocyanine Green G Pigment Green 7 C. I. No. 74260	1.6	6.5	34 ±2	7.2	5	5	5	5	4-5	4-5	5	4-5	5	5	5
Phthalocyanine Green B Pigment Green 8 C. I. No. 10006	1.65	4.5	46 ±2	6.8	5	5	5	5	4	4	4	4	5	4	4
Pigment Yellow G Pigment Yellow 1 C. I. No. 11680	1.4	7.8	40 ±2	6.8	5	5	5	4	2-3	2-3	2	1-2	2-3	1-2	2-3
Pigment Yellow 10G Pigment Yellow 3 C. I. No. 11710	1.5	7.0	36 ±2	6.8	5	5	5	4	2-3	2-3	2	1-2	3	1	1
Pigment Yellow AG Pigment Yellow 12 C. I. No. 21090	1.4	7.5	50 ±2	6.8	5	5	5	5	5	2	2	2	4	2	3
Pigment Yellow AR (transparent) Pigment Yellow 12 C. I. No. 21090	1.4	7.8	52 ±2	6.8	5	5	5	5	5	2	2	2	4	2	3
Pigment Yellow ARX Pigment Yellow 13 C. I. No. 21100	1.4	5.8	38 ±2	6.8	5	5	5	5	5	4	4	4	5	3-4	3
Pigment Yellow ARX (transparent) Pigment Yellow 13 C. I. No. 21100	1.4	6.2	40 ±2	6.8	5	5	5	5	5	5	5	4	5	4	4
Pigment Yellow AGG Pigment Yellow 14 C. I. No. 21095	1.4	6.0	45 ±2	6.8	5	5	5	5	5	4	4	3	5	3	3
Pigment Yellow 17 Pigment Yellow 17 C. I. No. 21105	1.3	6.8	60 ±2	6.8	5	5	5	5	5	4	4	4	5	4	3
Pigment Yellow 74 Pigment Yellow 74 C.I.No. 11741	1.4	7.0	37 ±2	6.8	5	5	5	5	5	4	4	4	5	3	1

FASTNESS PROPERTIES																			
Plasticizers / Oil (1 - 5 Scale)								Light (1 - 8 Scale)		Heat (1 - 5 Scale)		Over-spray (1 - 5 Scale)						Application	Full Strength Reduction 1:10
Cellosolve	Diethylene Glycol	D.B.P.	D.O.P.	Linseed Oil	Oleic Acid	Soap	Paraffin Wax	Full Strength	Reduction TiO ₂	150°C (300°F) 20 Minutes	180°C (355°F) 10 Minutes	120°C (250°F) 30 Minutes	N.C. Lacquer	Print Finish (1 - 5 Scale)	Litho Break (1 - 5 Scale)				
3	5	5	5	5	5	5	5	7	6	5	4	2-3	2-3	4	4	<ul style="list-style-type: none">● Offset Ink, Oil Paint● Plastic○ Emulsion Paint○ Textile Printing Paste	<div></div>		
3	5	5	5	5	5	5	5	7	6	5	4	2-3	2-3	4	4	<ul style="list-style-type: none">● Offset Ink, Oil Paint● Plastic○ Emulsion Paint○ Textile Printing Paste	<div></div>		
5	5	5	5	5	5	5	5	7	6	5	5	5	5	4	4	<ul style="list-style-type: none">● Ink (offset, aqueous)● Paint (oil, emulsion)● Textile Printing Paste○ Solvent Paint, Plastic	<div></div>		
5	5	5	5	5	5	5	5	7-8	7	5	4	5	4	4	4	<ul style="list-style-type: none">● Offset Ink● Solvent Based Ink (NC & Polyamide)	<div></div>		
4-5	5	5	5	5	5	3	5	7-8	6-7	5	5	5	4	4	4	<ul style="list-style-type: none">● Ink (offset, aqueous)● Textile Printing Paste● Paint (oil, emulsion)● Plastic	<div></div>		
2	4	2	2	5	5	5	5	6-7	5-6	5	4	3	4	4	4	<ul style="list-style-type: none">● Ink● Plastic● Rubber	<div></div>		
3	4	4	3-4	5	4-5	4	4-5	7	5-6	4	2	2	3-4	2	3	<div>Bright Color</div> <ul style="list-style-type: none">● Emulsion Paint● Aqueous Ink○ Offset Ink, Solvent Paint	<div></div>		
1-2	4	3	3-4	4-5	4	4	4-5	7	4-5	3-4	3-4	3-4	3-4	1	4	<div>High Color Strength, Good Gloss</div> <ul style="list-style-type: none">● Emulsion Paint● Aqueous Ink○ Offset Ink, Solvent Paint	<div></div>		
3	5	5	5	5	5	5	5	4-5	4-5	4-5	4	3	2	3	4	<ul style="list-style-type: none">● Ink (offset, aqueous)○ Plastic	<div></div>		
2	4	5	5	5	5	5	5	2-5	3-4	3-4	3	1	1	4	4	<div>Bright Color, Light Ink Color</div> <ul style="list-style-type: none">● Offset Ink● Aqueous Ink	<div></div>		
4	5	5	5	5	5	5	5	6-7	4-5	5	4	4	4	4	3	<div>Red Shade, High Color Strength</div> <ul style="list-style-type: none">● Ink (offset, aqueous)○ Textile Printing Paste	<div></div>		
4	5	5	5	5	5	5	5	6-7	4-5	5	4	4	4	4	4	<div>Transparent Type</div> <ul style="list-style-type: none">● Ink (offset, aqueous)○ Textile Printing Paste	<div></div>		
4	5	5	5	5	5	5	5	4-5	2-3	5	4	4	2	3	3	<div>Bright Green Shade, Fine Particles</div> <ul style="list-style-type: none">● Aqueous Ink● Emulsion Paint○ Textile Printing Paste	<div></div>		
4	5	5	5	5	5	5	5	6-7	4-5	5	4	4	2	4	4	<div>High Color Strength, Good Dispersion</div> <ul style="list-style-type: none">● Plastic● Offset Ink	<div></div>		
4-5	4	5	5	5	5	5	5	7-8	5	4	2	2	2	5	4	<div>Good Light Resistance, High Covering Power</div> <ul style="list-style-type: none">● Paint (emulsion, solvent)● Aqueous Ink● Textile Printing Paste	<div></div>		

PHYSICAL PROPERTIES				PIGMENT POWDERS											
	Specific Gravity	Bulk Volume (litres/kg)	Oil Absorption (gm/100gm)		Reagents (1 - 5 Scale)				Solvents						
				pH of 2% Extract	Water	5% Acid (HCl)	5% Alkali (NaOH)	Lime	Ethanol	N-Butanol	N-Butyl Acetate	M.E.K.	White spirit	Xylene	Mixed NC Solvents
Pigment Yellow 83 Pigment Yellow 83 C.I.No. 21108	1.45	5.0	45 ±2	6.8	5	5	5	5	5	5	3	3-4	3-4	4	3-4
Pigment Yellow 174 Pigment Yellow 174 C.I.No. 21098	1.35	4.0	43 ±2	6.8	5	5	5	5	5	4	4	3	3	3	3
Pigment Di Nitraneline Orange Pigment Orange 5 C.I.No. 12075	1.6	5.5	52	6-8	5	5	5	5	5	3	2-3	2	4	2	2
Pigment Orange G Pigment Orange 13 C.I.No. 21110	1.55	7.0	50 ±2	6.8	5	5	5	5	4	3	2	1-2	3	1	1
Pigment Orange HF Pigment Orange 34 C.I.No. 21115	1.5	7.0	45 ±2	6.8	5	5	5	5	3-4	3	4	3	3	3	3
Pigment Red F2R Pigment Red 2 C.I.No. 12310	1.5	5.5	50 ±2	6.8	5	5	5	3-4	3-4	2-3	3	1	2-3	3-4	1
Pigment Red 3 Pigment Red 3 C.I.No. 12120	1.55	6.6	50 ±2	6.8	5	5	5	5	3	2	2	1	4	1	1
Pigment Red F4R Pigment Red 8 C.I.No. 12335	1.4	6.8	58	6.8	5	5	5	5	2	1	2	1	3	1	1
Pigment Red 22 Pigment Red 22 C.I.No. 12315	1.4	6.5	40 ±2	6.8	5	5	3	5	2	1	3	2	3	2	3
Pigment Red 23 Pigment Red 23 C.I.No. 12355	1.8	6.5	50 ±2	7	5	5	5	5	5	4	4	4	4	2	2
Pigment Scarlet BBN Pigment Red 48:1 C.I.No. 15865:1	1.9	2.8 ±2%	45	6-8	4-5	3	3	5	4-5	4	3	4-5	4-5	1-2	4
Pigment Red F2B Pigment Red 48:2 C.I.No. 15865:2	1.6	4.8	45 ±2	6.8	5	5	5	5	4	4	4	4	4	4	2
Pigment Red BBS Pigment Red 48:3 C.I.No. 15865:3	1.8	7.6	45	6-8	4-5	4-5	4-5	4	3-4	3-4	3-4	3-4	4-5	1-2	2
Pigment Red 2B Pigment Red 48:4 C.I.No. 15865:4	1.6	4	55	6-8	4-5	3	3-4	4	4-5	3-4	3-4	5	5	5	2
Pigment Red 49:1 Pigment Red 49:1 C.I.No. 15630:1	1.6	7.8	40 ±2	6.8	5	2	5	5	4	4	4	3	4	3-4	3

FASTNESS PROPERTIES																			
Plasticizers / Oil (1 - 5 Scale)								Light (1 - 8 Scale)		Heat (1 - 5 Scale)		Over-spray (1 - 5 Scale)						Application	Full Strength Reduction 1:10
Cellosolve	Diethylene Glycol	D.B.P.	D.O.P.	Linseed Oil	Oleic Acid	Soap	Paraffin Wax	Full Strength	Reduction TiO ₂	150°C (300°F) 20 Minutes	180°C (355°F) 10 Minutes	120°C (250°F) 30 Minutes	N.C. Lacquer	Print Finish (1 - 5 Scale)	Litho Break (1 - 5 Scale)				
3-4	5	5	5	5	5	5	5	6-7	4-5	5	4	4	4	5	4	Bright Red Shade, Good Gloss ● Offset Ink ● Plastic ● Paint		<div><div></div><div></div></div>	
2	3-4	4	4	5	4	4-5	5	6-7	4-5	5	4	4	4	5	4	● Offset, Gravure, Flexo ○ O.B.D., Distempers ○ Aqueous Colors For Textiles		<div><div></div><div></div></div>	
2	2	2	2	3	2	5	3	6	5	3-4	2-3	2-3	2	1	4	High Color Strength ● Aqueous Ink ● Textile Printing Paste		<div><div></div><div></div></div>	
2	4	5	5	5	5	3	5	5-6	3-4	3-4	3	2	2	4	3	High Color Strength, Bright Yellow Shade ● Ink (offset, aqueous) ● Plastic ● Textile Printing Paste		<div><div></div><div></div></div>	
2	4	5	5	5	5	3	5	5-6	3-4	3-4	3	2	2	4	3	Bright Color, Good Gloss ● Ink (offset, aqueous) ● Textile Printing Paste ● Plastic		<div><div></div><div></div></div>	
1	2	2	2	5	4	1	5	6-7	3-4	3-4	2	2	2	4	4	Bright Color, Easy Dispersing ● Aqueous Ink ● Textile Printing Paste ○ Air Drying Paint		<div><div></div><div></div></div>	
1	2	2	2	4	4	1	5	6-7	3-4	3-4	2	2	2	3	4	Blue Shade, Good Gloss ● Air Drying Paint ● Emulsion Paint		<div><div></div><div></div></div>	
2	4	3	3	5	5	4-5	5	5-6	3-4	3	2	2	2	4	4	Yellow Shade, Good Fluidity ● Textile Printing Paste ● Offset Ink ● Aqueous Ink		<div><div></div><div></div></div>	
2	3	2	2	5	4	4	5	5	3	5	4	5	4	4	4	High Transparency And Color Strength. Fine Particle ● Aqueous Ink ● Textile Printing Paste		<div><div></div><div></div></div>	
3	4	3	3	5	4	4	5	7	6	5	4	5	4	4	4	Blue Shade, Bright Color ● Aqueous Ink ● Textile Printing Paste		<div><div></div><div></div></div>	
4	2	3-4	3-4	4-5	4	5	4	4	2-3	3-4	3	2	2	4	3	High Color Strength ● Ink (offset), Plastic ○ Ink (gravure)		<div><div></div><div></div></div>	
2	2	5	5	5	5	2	5	7	6-7	4-5	4	4	4	4	4	High Color Strength, Easy Dispersing ● Solvent Ink ○ Plastic		<div><div></div><div></div></div>	
3-4	2	3-4	3-4	4	4	2-4	4	6-7	5-6	4-5	4	4	4	4	4	High Color Strength ● Ink (flexo, gravure), Plastic ● Ink (offset)		<div><div></div><div></div></div>	
3-4	4-5	4-5	3-4	4	2-3	5	5-6	3-4	5-6	4-5	4	4	4	4	4	High Color Strength ● Paint Plastic ● Textile Printing Paste		<div><div></div><div></div></div>	
2	2	3	3	5	5	2	5	5	3	5	4	4	4	2	3	Good Gloss, Good Fluidity ● Offset Ink ○ Aqueous Ink		<div><div></div><div></div></div>	

PHYSICAL PROPERTIES				PIGMENT POWDERS											
	Specific Gravity	Bulk Volume (litres/kg)	Oil Absorption (gm/100gm)	pH of 2% Extract	Reagents (1 - 5 Scale)				Solvents				Other		
					Water	5% Acid (HCl)	5% Alkali (NaOH)	Lime	Ethanol	N-Butanol	N-Butyl Acetate	M.E.K.	White spirit	Xylene	Mixed NC Solvents
Pigment Red 49:2 Pigment Red 49:2 C.I.No. 15630:2	1.6	5.5	44	6.8	5	5	5	5	2	2	2	2	2	2	2
Pigment Lake Red C (opaque) Pigment Red 53:1 C.I.No. 15585:1	1.8	6.5	50 ±2	7.5	5	3	2	4	4	2	2	1	4	1	1
Rubine Toner CAO (opaque) Pigment Red 57:1 C.I.No. 15850:1	1.6	5.8	54 ±2	7.0	5	2	2	3	4	2	2	2	5	3	2
Pigment Red BB Pigment Red 112 C.I.No. 12370	1.6	6.0	37 ±2	7.2	5	5	5	4-5	3-4	2	2	1-2	3-4	3	2-3
Pigment Fast Pink 122 Pigment Red 122 C.I.No. 73915	1.4	6.5	55	6.5 7.5	5	5	5	5	4	2	2	5	4	5	1
Pigment Carmine FB Pigment Red 146 C.I.No. 12485	1.4	6.6	46 ±2	6.8	5	5	5	5	2	2	3	2	4	5	2
Pigment Red 170 Pigment Red 170 C.I.No. 12475	1.4	4.4	39	7.2	5	5	5	-	5	5	4	4	3	3	3
Pigment Violet Toner Pigment Violet 3 C.I.No. 42535:2	1.4	3.5	60	7.1	4	1	1	-	2	2	4	3	4	1	3
Pigment Fast Violet 19 Pigment Violet 19 C.I.No. 73900	1.4	-	65 70	7	5	5	-	5	4	2	2	5	4	5	1
Pigment Violet 23 Pigment Violet 23 C.I.No. 51319	1.52	5.0	65 ±2	6.5 7.5	5	5	5	5	5	5	5	5	4	5	5
Pigment Yellow 65 Pigment Yellow 65 C.I.No. 11740	1.45	6.2	45 ±2	6.8	5	5	5	5	5	4	3	3	3-4	4	3-4

ORGANIC PIGMENT POWDERS

This pattern card illustrates the shades of selected pigments from our range of organic pigments. They are used in colouring of printing inks, paints, textile emulsions, plastics, rubber, carbon paper and other quality of papers.

These pigments are homogeneous and technically pure fine powders belonging to the azo and phthalocyanine groups. Physical properties alongwith fastness properties and application usages are given against each pigment shown in the card.

FASTNESS PROPERTIES																		
Plasticizers / Oil (1 - 5 Scale)								Light (1 - 8 Scale)		Heat (1 - 5 Scale)		Over-spray (1 - 5 Scale)				Application	Full Strength Reduction 1:10	
Cellulosolve	Diethylene Glycol	D.B.P.	D.O.P.	Linseed Oil	Oleic Acid	Soap	Paraffin Wax	Full Strength	Reduction TiO ₂	150°C (300°F) 20 Minutes	180°C (355°F) 10 Minutes	120°C (250°F) 30 Minutes	N.C. Lacquer	Print Finish (1 - 5 Scale)	Litho Break (1 - 5 Scale)			
2	2	2	2	4	2	2	5	3-4	2-3	3-4	2-3	2-3	2	1	4	Slight Blue Shade, High Color Strength ● Aqueous Ink ● Textile Printing Paste		
1	2	3	3	5	4	1	4	4	1-2	4-5	4-5	2	2	4	4	High Gloss, High Color Strength ● Ink (offset, aqueous) ○ Plastic		
2	2	4	4	5	4	1	4	5-6	3-4	4	3	2	2	4	3	● Ink ● Plastic ● Emulsion Paint		
2	3	3	3	5	4	4	3	6-7	5-6	3	2	2	2	4	4	Good Light Resistance ● Ink (offset, aqueous) ● Emulsion Paint ○ Plastic		
1	2	2	2	4	4	1	5	8	8	3-4	2	2	2	3	4	● Ink (offset, aqueous) ● Emulsion Paint ○ Plastic		
2	3	3	3	5	4	2	5	6-7	3-4	4	3	3	3	3	4	● Aqueous Ink ● Textile Printing Paste ○ Plastic		
3	4	4	4	5	4	4	4	7	6	5	4	5	4	5	4	Good Light Resistance ● Solvent Paint ● Textile Printing Paste ○ Ink (aqueous, offset)		
3	3	1	1	4	3	1	3	6	3	3	3	4	4	-	-	● Printing Inks (offset & flexo, gravure, water base, TPC inks) ● Leather Cloth ● N.C Lacquer		
1	2	2	2	4	4	1	5	8	8	3-4	2	2	2	3	4	● Ink (offset, aqueous)		
5	5	5	5	5	5	5	5	7.8	6.7	5	5	5	5	4.5	4.5	● Printing Inks (offset, gravure, flexo, TPC inks) ● Emulsion Paint ● O.B.D.		
3-4	4	3	3	5	5	4	3	6-7	4-5	4	4	4	3	4	4	Easy Dispersing, Bright Color ● Aqueous Ink ● Emulsion Paint ● Textile Printing Paste		

Fastness assessment:

Numerical rating are given on the international scale as mentioned below:

Light : 1 8 (blue scale)
1 (minimum) poor and 8 (maximum) excellent.

Other agencies 1 5
1 (minimum) poor and 5 (maximum) excellent

The fastness figures and other data mentioned on the pattern pages of this shade card are indicative without any warranty and are meant only for guidance. Requirements vary so much that it is recommended that customers should test the pigment under actual conditions prevailing as to their suitability for any specific application.