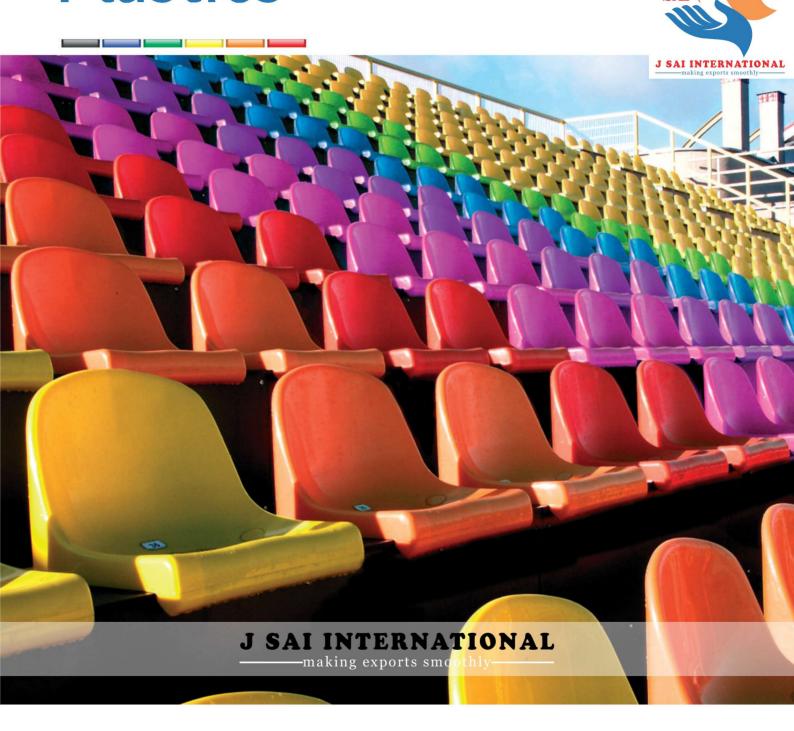


Dyes, Pigments and Intermediates



With the extensive experience, we offer you quality products and enhanced services that exceeds your expectations.



Technical Information

			Application							Properties						
Product Code	Color Index Name	Chemistry	Polyolefins	PVC & PVC Leather	Engineering Plastic	Nylon 6	PBT / PET	PP Fibre	Light Fastness Full Tone/Tint	Weather Fastness Full Tone/Tint	Heat Resistance in HDPE (°C)	Bleeding in PVC - P	Warpage in HDPE			
Yellow 114	PY 62	Monoazo	•	•				•	7/6-7	-	250	5	Low			
Yellow 2903K	PY 151	Benzimidazolone	•	•	0			•	8/7-8	3/-	290	5				
Yellow 2909	PY 180	Benzimidazolone	•	•	•			•	6-7/6-7	-	290	5	Low			
Yellow 132K	PY 191	Monoazo	•	•	•			•	7/6-7	10	300	5	Low			
Yellow 2939	PY 139	Isoindoline	•	•				•	8/7	-	240	5	Low			
Yellow 2925K	PY 110	Isoindolinone	•	•	•			•	8/7-8	4-5/4	300	5	-			
Yellow 2927	PY 110	Isoindolinone	•	•	•			•	8/7-8	4-5/4	300	5	-			
Orange 2918	PO 64	Benzimidazolone	•	•	•			•	8/7-8	3-4/-	300	5	Low			
Orange 2917	PO 64	Benzimidazolone	•	•	•			•	8/7-8	3-4/-	300	5	Low			
Red 5016	PR 53:1	Monoazo-Ba-Lake	•	•	0			•	4-5/2-3	-	270	4-5	-			
Red 507K	PR 53:1	Monoazo-Ba-Lake	•	•	0				4-5/2-3		260	4-5	-			
Red 570	PR 48:3	Monoazo-Sr-Lake	•	•				•	6-7/5	-	240	4-5	Low			
Red 2964K	PR 170	Naphthol	•	0				•	8/7	3/-	270	2	Low			
Red 2963K	PR 170	Naphthol	•	0				0	8/7	3/-	260	2	Low			
Red 2967K	PR 170	Naphthol	•	0				0	8/7	-	250	2	Low			
Red 554	PR 48:2	Monoazo-Ca-Lake	•	•				•	7/5-6	-	240	4-5	Low			
Red 564	PR 48:2	Monoazo-Ca-Lake	•	•				•	7/5-6	-	240	4-5	Low			
Red 2985	PV 19	Quinacridone	•	•	•			0	8/7-8	4-5/4	300	5	Low			
Red 2953K	PR 264	DPP	•	•	0			0	7-8/7-8	4-5/3	300	5	-			
Red 635	PR 57:1	Monoazo-Ca-Lake	•	•				•	6-7/4	-	240	4-5	-			
Pink 2991	PR 122	Quinacridone	•	•	•	0	•	•	8/8	4-5/4	300	5	Low			
Blue 2764	PB 15:1	Phthalocyanine	•	•	•	0	0	•	8/8	5/5	300	4	-			
Blue 2789	PB 15:3	Phthalocyanine	•	•	•	•	•	•	8/8	5/5	300	5	-			
Green 2730K	PG 7	Phthalocyanine	•	•	•	•	•	•	8/8	5/5	300	5	-			

Note:

Light fastness is assessed on 1-8 Blue Wool Scale where 1=Poor & 8=Excellent.

Weather fastness is assessed on 1-5 Grey Scale where 1=Poor & 5= Excellent. All data is based on internal testing and does not guarantee specific properties or performance. Samples are available for customer testing on request. The quality of our product is guaranteed under our General Conditions of sale.

Recommended

Potential use

 $\textbf{Resistance to heat} \ \text{tested in HDPE polymer at } \ 1/3 \ \text{standard depth of pigment with } \ 1.00\% \ \text{Titanium dioxide}.$

 $\textbf{Bleeding in PVC-P} \ assessed \ on \ 1-5 \ Grey \ Scale \ where \ 5=No \ Bleeding \ \& \ 1=Heavy \ Bleeding \ \& \ Bleeding \ \& \ Bleeding \ \& \ Bleeding \ \& \ Bleeding \ Bleeding \ \& \ Bleeding \ Bleeding \ \& \ Bleeding \ Ble$

 $\textbf{Color Reproduction:} For technical reasons connected with color reproduction, the colors shown may not exactly match the pigment colors and do not represent a particular finish. Full shades are reproduced with 0.2% pigment loading. Tint shades are reproduced with a ratio of Pigment: TiO <math>_2$ = 1:10 in PP Polymer.

Disclaimer: The information included here is based on the reliable data generated by our laboratories. Since the Performance of a pigment also depends on the additives and polymers used, we recommend that customers should test the suitable of the pigment for their end application. However, if we are provided with testing methods and samples, we would be glad to do the same. We will do our best to provide products of consistent quality, within the scope of the conditions of sale and delivery. Should, in spite of these precautions, any liability be established, the damage, if any, will be limited to the value of the goods delivered by us and used by you.

Caution: We provided a special series of pigments to be used in cosmetics and food packaging materials. Only products designed for these applications should be used. We do not recommended that any of our products are used in sensitive applications which may come in contact with internal body organs or body fluids.



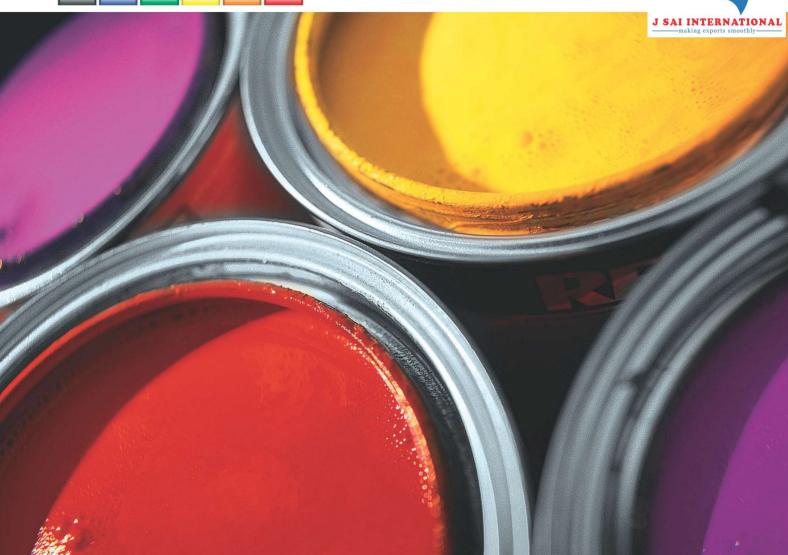




pigments for

Decorative Paints





J SAI INTERNATIONAL

-making exports smoothly-

Pigments for Decorative Paints

Technical Information

Product Name & Code	Color Index Name	Air Drying Alkyd Paint	Water Base Decorative Paint	Opacity	Light fastness Full Tone/Tint	Weather fastness Full Tone / Tint	Fastness to Alkali	Specific Gravity	Oil Absorption
Yellow 10G	PY 3	•	•	Semi-transparent	7/5	-	5	1.30	27
Yellow G	PY 1	•	•	Semi-transparent	7/5	-	4-5	1.42	50
Yellow 2903	PY 151	•	-	Opaque	8/7	5/4	3	1.50	50
Yellow 2906	PY 154	•	•	Opaque	8/7	5/4	4-5	1.40	37
Yellow 117	PY 74	•	•	Transparent	7/5	4/2	4	1.39	40
Yellow 127	PY 74	•	•	Opaque	7/5	4/2	5	1.37	35
Yellow 128C	PY 74	•	•	Transparent	6/5	4/2	5	1.40	36
Yellow 118	PY 65	•	•	Transparent	6/5	4/2	5	1.49	40
Yellow 134	PY 83	•	•	Opaque	7/6	4/3	5	1.40	47
Yellow 135	PY 83	•	•	Opaque	7/5	-	3	2.04	43
Yellow 137C	PY 83	•	•	Transparent	7/5	-	5	1.30	45
Yellow 2925C	PY 110	•	•	Semi-transparent	8/7	5/4	5	1.40	30
Orange 2915	PO 36	•	•	Opaque	8/7	5/4	5	2.00	44
Red 417	PR 3	•	•	Opaque	6/4	-	5	1.45	41
Red 415	PR 3	•	•	Opaque	6/4	-	5	1.55	40
Red 341	PR 112	•	•	Opaque	7-8/4-5	-	4-5	1.46	40
Red 336	PR 112	•	•	Semi-transparent	7/6	Ξ	5	1.40	41
Red 331	PR 112	•	•	Transparent	7/5-6	-	5	1.40	44
Red 2963C	PR 170	•	•	Semi-transparent	7/5	4/2	5	1.25	38
Red 2964C	PR 170	•	•	Semi-transparent	7/5	4/2	5	1.48	43
Red 2967C	PR 170	•	•	Semi-transparent	7/5	4/2	5	1.20	36
Red 2987	PV 19	•	•	Semi-transparent	8/7	5/4	5	1.40	67
Pink 2998	PR 122	•	•	Transparent	8/7	5/4	5	1.34	50
Pink 2999	PR 122	•	•	Transparent	8/7	5/4	5	1.32	55
Pink 2997C	PR 122	•	•	Transparent	8/7	5/4	4	1.55	55
Red Violet 2995	PV 19	•	•	Transparent	8/7	5/4	5	1.43	56
Blue 2662	PB 15:1	•	•	Transparent	8/8	5/5	5	1.50	34
Blue 2785	PB 15:3	•	•	Transparent	8/8	5/5	5	1.50	43
Blue 2796	PB 15:4	•	•	Transparent	8/8	5/5	4-5	1.30	46
Green 2727C	PG 7	•	•	Transparent	8/8	5/5	5	2.60	34

Suitable for application
Potential Use

Note : The values displayed in the oil absorption column are in tolerance of $\pm 10\%$

Light fastness is assessed on 1-8 Blue Wool Scale where 1= Poor & 8 = Excellent Weather fastness is assessed on 1-5 Grey Scale where 1= Poor & 5= Excellent

Pigments for Decorative Paints



Color Reproduction: For technical reasons connected with color reproduction, the colors shown may not exactly match the pigment colors and do not represent a particular finish.

Tint shades are reproduced with a ratio of Pigment: $TiO_2 = 1:20$.

Light fastness is assessed on 1-8 Blue Wool Scale where 1= Poor & 8 = Excellent

Weather fastness is assessed on 1-5 Gray Scale where 1= Poor & 5= Excellent

Pigments

Our pigments

have been carefully selected to provide a palette with a wide spectrum of colors and effects for decorative paints and coatings.

They are ideal for use in universal stainers for inplant and in-store tinting systems, solvent and water based tinters and dispersions or finished paints.

Sudarshan pigments are generally equivalent to or superior than other leading products and they offer exceptional value-in-use.





Technical Properties

- Bright and intense colors
- High tinctorial strength
- Good range of opaque and transparent pigments
- Good rheology that allows for high pigment loadings in mill bases
- Wide compatibility across solvent and water based paints
- Excellent solvent and bleed fastness
- Readily dispersible
- Exceptional light fastness

Color Combinations

The transparent colors in the range are easily combined with pearlescent pigments, in our Sumica™ range, or metallics, to produce excellent special effects which are stable to typical stir-in processes. They are suitable for interior and exterior applications, with special weather-resistant grades.

pigments for

Industrial & Transportation





Pigments for Industrial & Transportation

Technical Information

Product Name & Code	Color Index Name	Chemistry	OEM Paints	Refinish Paints	Industrial Paints	Powder Coatings	Opacity	Light fastness Full Tone/Tint	Weather fastness Full Tone/Tint	Heat Fastness (°C)	Over Spray Fastness
Yellow 2903	PY 151	Benzimidazolone	0	•	•	•	Opaque	8/7	5/4	180	5
Yellow 2906	PY 154	Benzimidazolone	0	•	•	•	Opaque	8/7	5/4	160	5
ellow 134	PY 83	Disazo			•	•	Opaque	7/6	4/3	180	4-5
Yellow 2935	PY 139	Isoindoline	0	•	•	•	Opaque	7-8/7	4/3-4	180	5
Yellow 2923	PY 110	Isoindolinone	•	•	•	•	Transparent	8/7	5/4	200	5
Yellow 2925C	PY 110	Isoindolinone	•	•	•	•	Semi-transparent	8/7	5/4	180	4-5
Orange 2919	PO 64	Benzimidazolone			•	•	Opaque	5-6/3		180	-
Orange 2915C	PO 36	Benzimidazolone	0	•	•	•	Opaque	8/7	5/4	160	5
Red 2963C	PR 170	Naphthol		•	•	•	Semi-transparent	7/5	4/2	180	4-5
Red 2964C	PR 170	Naphthol		•	•	•	Semi-transparent	7/5	4/2	180	4-5
Red 2967C	PR 170	Naphthol		•	•	•	Semi-transparent	7/5	4/2	180	4-5
Red 2953C	PR 264	DPP	•	•	•	•	Transparent	8/7	5/4	180	5
Red 2987	PV 19	Quinacridone	0	•	•	•	Semi-Transparent	8/7	5/4	180	5
Pink 2997C	PR 122	Quinacridone	•	•	•	•	Transparent	8/7	5/4	180	5
Red Violet 2995	PV 19	Quinacridone	•	•	•	•	Transparent	8/7	5/4	200	5
Red Violet 2996	PV 19	Quinacridone	•	•	•	•	Transparent	8/7	5/4	200	5
Blue 2662	PB 15:1	Phthalocyanine		0	•		Transparent	8/8	5/5	200	5
Blue 2773	PB 15:2	Phthalocyanine	•	•	•	•	Transparent	8/8	5/5	200	5
Blue 2789*	PB 15:3	Phthalocyanine				•	Transparent	8/8	5/5	180	5
Blue 2796	PB 15:4	Phthalocyanine	•	•	•	•	Transparent	8/8	5/5	200	5
Green 2727C	PG 7	Phthalocyanine	0	•	•	•	Transparent	8/8	5/5	200	5

Suitable for application O Potential Use

Light fastness is assessed on 1-8 Blue Wool Scale, where 1 = Poor & 8 = Excellent. Weather fastness is assessed on 1-5 Gray Scale, where 1 = Poor & 5 = Excellent All data is based on internal testing and does not guarantee specific properties or performance. Samples are available for customer testing on request. The quality of our products is guaranteed under our general conditions of sale.

Pigments for Industrial & Transportation



Green 2727C PG7

Color Reproduction: For technical reasons connected with color reproduction, the colors shown may not exactly match the pigment colors and do not represent a particular finish. Tint shades are reproduced with a ratio of Pigment: $TiO_2 = 1:20$

^{*} only for powder coatings

pigments for

Industrial & Transportation







Products

we brings a unique opportunity to the industrial, transportation and automotive sectors: leading products, excellent service and exceptional value.

we use 6-Sigma production techniques to ensure that the highest quality products are consistently delivered from our plant to serve the most stringent demands of the high performance coatings industry.

Affordable color without compromise.

Technical Properties

- Bright and intense colors
- High tinctorial strength
- Good range of opaque and transparent pigments
- Wide choice of economic and premium products
- Wide compatibility across reactive and nonreactive binders and curing agents
- Readily dispersible
- Excellent lightfastness and weatherfastness

Disclaimer: The information included here is based on the most reliable data generated by our laboratories. Since the performance of a pigment also depends on the additives and polymers used, we recommend that customers should test the suitability of the pigment for their end application. However, if we are provided with testing methods and samples, we would be glad to do the same.

We will do our best to provide products of consistent quality, within the scope of the general conditions of sale and delivery. Should, in spite of these precautions, any liability be established, the damage, if any will be limited to the value of the goods delivered by us and used by you.

pigments for Liquid Inks





Pigments for Liquid Inks

Technical Information

Product Name & Code	Color Index Name	NC-PU Inks	Water base Ink	Opacity	Light fastness Full Tone/ Tint	Oil Absorption
Yellow 182	PY 14	•	_	Opaque	5/3	31 ± 10%
Yellow 169	PY 13	_	•	Semi Transparent	6/5-6	52 <u>+</u> 10%
Yellow 195	PY 13	•	_	Transparent	5-6/5	52 ± 10%
Orange 211D	PO 34	_	•	Transparent	6-7/5-6	56 ± 5%
Red 312	PR 2	_	•	Semi Transparent	6/4	38 ± 10%
Red 314	PR 2	_	•	Semi Transparent	6/4	38 ± 10%
Red 604	PR 57:1	_	•	Semi Transparent	5-6/4	62 ± 5%
Red 2973	PR 146	•	_	Transparent	6/5	57 ± 5%
Blue 2786D	PB 15:3	_	•	Semi Transparent	8/8	40 <u>+</u> 10%
Blue 2779D	PB 15:3	•	_	Semi Transparent	8/8	40 <u>+</u> 10%
Blue 2791D	PB 15:4	•	_	Semi Transparent	8/8	38 <u>+</u> 10%
Blue 2792D	PB 15:4	•	_	Semi Transparent	8/8	38 <u>+</u> 10%
Green 2727	PG 7	_	•	Semi Transparent	8/8	30 <u>+</u> 10%

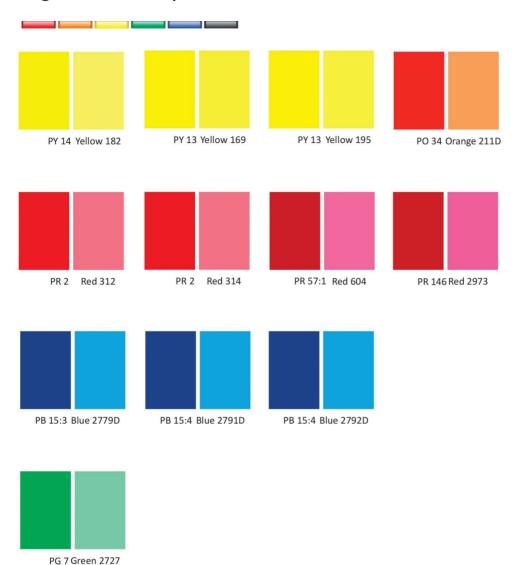
Suitable for application

Light fastness is assessed on 1-8 Blue Wool Scale where 1= Poor & 8= Excellent.

All data is based on internal testing and does not guarantee specific properties or performance. Samples are available for customer testing on request. The quality of our products is guaranteed under our General Conditions of Sale.

O Potential use for application

Pigments for Liquid Inks



Disclaimer: The information included here is based on the reliable date generated by our laboratories. Since the Performance of a pigment also depends on the additives and polymers used, we recommend that customers should test the suitable of the pigment for their end application. However, if we are provided with testing methods and samples, we would be glad to do the same.

Caution: We provided a special series of pigments to be used in cosmetics and food packaging materials. Only products designed for these applications should be used. We do not recommended that any of our products are used in sensitive applications which may come in contact with internal body organs or body fluids.

Color Reproduction: For technical reasons connected with color reproduction, the colors shown may not exactly match the pigment colors and do not represent a particular finish.

Our comprehensive color range of organic cyan, magenta and yellow pigments for liquid inks offers high quality and consistency at an affordable price, ideal for:



— Gravure

We support ink manufacturers with excellent technical service, in-situ support and customised products - a partnership approach, providing solutions that make sense.

Publication, Commercial Printing and Packaging Inks

Our complete range of high quality classical azos and phthalocyanines are equivalent or superior to the leading industry standards and are manufactured within tightly-controlled specifications.

Technical Properties

- Exceptional range of vibrant opaque, translucent and transparent colors
- Fasy dispersion
- Good range of light fastness and color permanence for exterior conditions
- Excellent performance in low viscosity inks, demonstrating superior rheology control to many industry standard grades
- Good range of heat-stable products that withstand the drying conditions used with water-based inks
- Excellent solvent resistance
- Stable to reactive resins and polymer and suitable for PA, vinyl and NC inks





offset inks





Pigments for Offset inks

Technical Information

				ml)		0.0		Applications				
Product Name & Code	CI Name	Opacity	Oil Absorption	Bulk density (g/ml)	Acid resistance	Alkali resistance	Soap fastness	Offset inks	UV offset	Metal deco Inks	Screen inks	
Yellow 128C	PY 74	Transparent	27	0.60	4-5	4-5	4	•			•	
Yellow 150	PY 12	Opaque	46	0.30	3	3	5	•			•	
Yellow 143	PY 12	Semi-transparent	53	0.19	5	5	5	•			•	
Yellow 192	PY 174	Semi-transparent	31	0.39	5	2-3	5	•	•	•	•	
Yellow 169	PY 13	Semi-transparent	52	0.32	4	4	5	•	•		•	
Orange 203D	PO 13	Semi-transparent	42	0.30	3-4	3-4	4	•			•	
Orange 211D	PO 34	Transparent	56	0.30	4-5	4-5	5	•			•	
Red 511	PR 53:1	Semi-transparent	48	0.40	3-4	4-5	1	•	•	•	•	
Red 312	PR 2	Transparent	38	0.25	5	4-5	3	•	•		•	
Red 314	PR 2	Transparent	55	0.24	3-4	3-4	3	•	•		•	
Red 623	PR 57:1	Transparent	63	0.19	1-2	1-2	1	•	•		•	
Red 626	PR 57:1	Transparent	65	0.35	1	3	1	•			•	
Red 2973	PR 146	Transparent	57	0.23	5	5	5	•	•		•	
Blue 2661D	PB 15:1	Transparent	38	0.41	5	5	5	•		•	•	
Blue 2780D	PB 15:3	Transparent	34	0.35	5	5	5	•		•	•	
Green 2727	PG 7	Transparent	30	0.42	5	5	5	•		•	•	

Suitable for application

Note:

The Soap fastness is assessed on 1-5 Grey scale, where 1='Poor' and 5='Excellent'

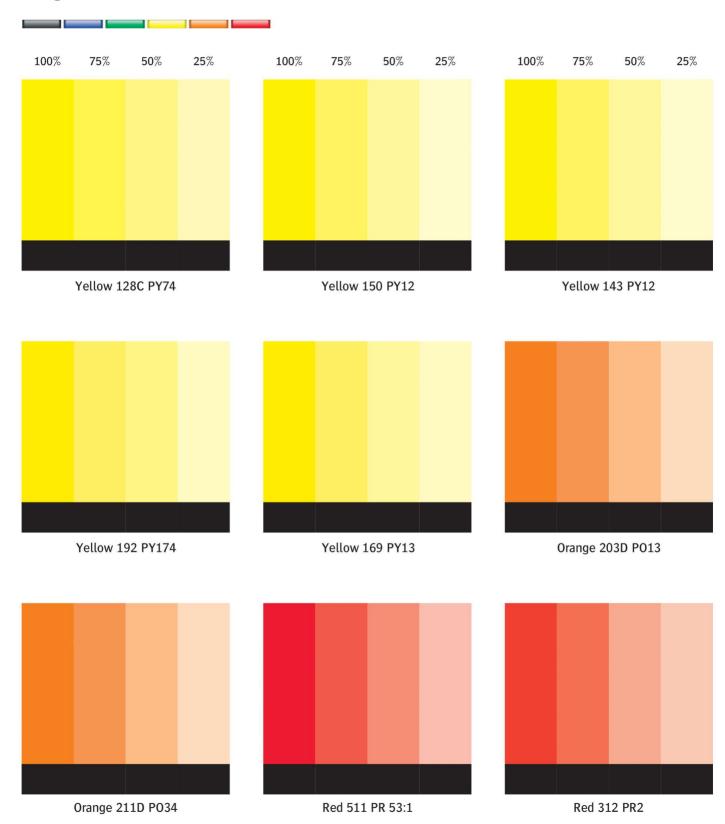
The acid & alkali resistance is tested using pigment powder & the visual rating is given on 1-5 Grey scale, where 1='Poor' and 5='Excellent'

The values displayed in the Oil absorption are in tolerance of \pm 10% & Bulk density values are in tolerance of \pm 0.1

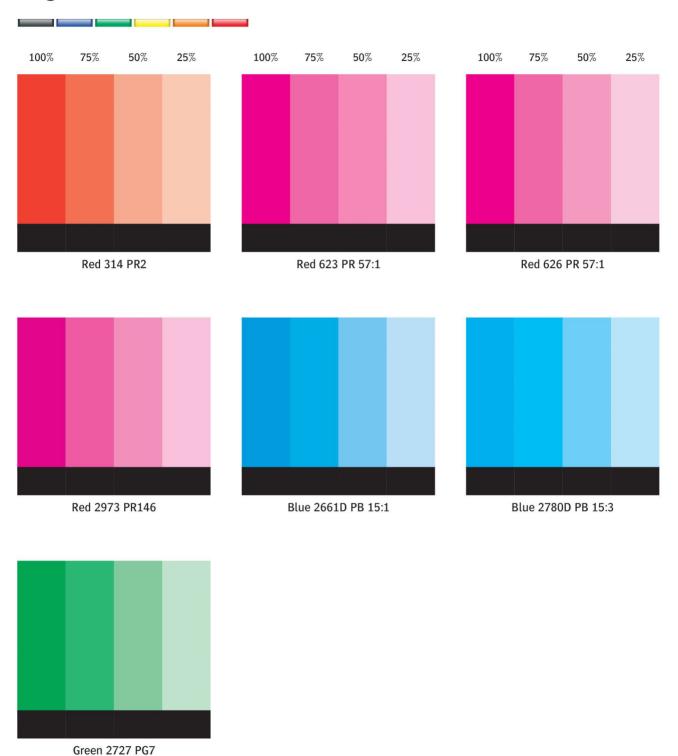
Disclaimer: The information included here is based on the most reliable data generated by our laboratories. Since the performance of a pigment also depends on the additives and polymers used, we recommend that customers should test the suitability of the pigment for their end application. However, if we are provided with testing methods and samples, we would be glad to do the same. We will do our best to provide a product of consistent quality, within the scope of the general conditions of sale and delivery. Should, in spite of these precautions, any liability be established, the damage, if any will be limited to the value of the goods delivered by us and used by you.

Caution: We do not recommend that any of our products are used in sensitive applications which may come in contact with internal body organs or body fluids.

Pigments for Offset inks



Pigments for Offset inks



Color Reproduction

For technical reasons connected with color reproduction, the colors shown may not exactly match the pigment colors and do not represent a particular finish.