

Application possibilities						
Nitrocellulose	Water based	Decorative laminates	PVB	PVC inks	Offset	UV curing
○		●				●
○		●				●
●	●		●		○	●
	●				○	
●	●				○	○
○	●			●		●
○	●	●	○			●
				●		●
○	●	●	●		●	●
●	●	●	●	●	●	●
●	●	●	●	●	●	●
●	●	●	●	●	●	●
○	○	○				
○	●				○	
●	○					○
○	●		○			○
○	●		●			○
				●		●
○	●	●	○		○	●
○	●	○			○	●
●	●				○	
○	●	●	○	●	○	●
●	●	●	●		○	●
●	●	●	○	●	○	●
●	●	●	●	○		●
●	●		●	○	○	●
●	●	●	○		●	●
●	●				○	○
●	●				○	○
○	●	○			○	●
○	●				●	
	●			●		●
●	●	○	○	○		●
●	●	○	○		○	●
		○		○		●
●	●	●			●	●
●	●	○	●	●		●
●	●	○	●	●	●	●
●	●		●	●	●	●
	●				●	●

Application possibilities ● main application ○ side application



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 **Synthesia**
Chemistry for the future

TiO ₂		Trade Name Versal®	C. I. Pigment	Chem. Type	HP Pigment	Transparency
1:1	1:10					
		Yellow E5G	Yellow 150	Metal Complex	●	medium
		Yellow E5GS 01	Yellow 150	Metal Complex	●	medium
		Yellow 7GX 01	Yellow 111	Monoazo		medium
		Yellow 10GD	Yellow 4	Monoazo		medium
		Yellow 10G	Yellow 3	Monoazo		medium
		Yellow 8GN	Yellow 128	Disazo Cond.	●	high
		Yellow H4G 01	Yellow 151	Benzimidazolone	●	low
		Yellow 3G	Yellow 93	Disazo Cond.	●	medium
		Yellow 5GD	Yellow 155	Bisacetoacetarylide	●	low
		Yellow 4GN	Yellow 155	Bisacetoacetarylide	●	medium
		Yellow 4GNY	Yellow 155	Bisacetoacetarylide	●	medium
		Yellow 4GNL	Yellow 155	Bisacetoacetarylide	●	medium
		Yellow H3G 01	Yellow 154	Benzimidazolone	●	medium
		Yellow 5GXW	Yellow 74	Monoazo		medium
		Yellow 5GXS	Yellow 74	Monoazo		high
		Yellow G	Yellow 1	Monoazo		medium
		Yellow 2GXD	Yellow 74	Monoazo		low
		Yellow GR	Yellow 95	Disazo Cond.	●	medium
		Yellow H3R	Yellow 181	Benzimidazolone	●	medium
		Orange HLD 01	Orange 36	Benzimidazolone	●	low
		Red 2GC	Red 4	β-naphthol		medium
		Scarlet 4RF	Red 242	Disazo Cond.	●	medium
		Red HF3S 01	Red 188	Naphthol AS		high
		Scarlet R	Red 166	Disazo Cond.	●	low
		Scarlet RT	Red 166	Disazo Cond.	●	high
		Red FGRD 01	Red 112	Naphthol AS		medium
		Red DP3G 01	Red 254	Diketopyrrolopyrrole	●	medium
		Red F2RA	Red 2	Naphthol AS		medium
		Red F2RF	Red 2	Naphthol AS		medium
		Red F3RKD	Red 170	Naphthol AS		medium
		Red 3RLT	Red 48:3	BONA Lake		medium
		Red BR	Red 144	Disazo Cond.	●	medium
		Red BRN	Red 214	Disazo Cond.	●	medium
		Red F5RK	Red 170	Naphthol AS		high
		Red F6RO 01	Red 57:1	BONA Lake		high
		Red HF3C 01	Red 176	Benzimidazolone	●	medium
		Blue ASG 01	Blue 15:1	Phthalocyanine		medium
		Blue LBS 01	Blue 15:3	Phthalocyanine		medium
		Green BG 01	Green 7	Phthalocyanine		medium
		Black B	Black 31	Perylene	●	high

Light		Physical Data		Fastness to solvents and chemicals						
full shade	1/3	density	oil absorption	Xylene	Acetone	Butylacetate	Ethanol	Water	HCl	NaOH
7-8	7	1.50	62	5	4-5	4-5	5	5	4	5
7-8	7	1.85	80	5	4-5	4-5	5	5	4	5
7	5-6	1.50	56	2	2-3	3	4-5	5	5	5
7	6-7	1.37	72	2-3	2-3	2	3	5	5	4
7	6-7	1.60	40	2	2-3	2	3	5	5	5
7-8	7	1.50	80	5	3-4	4-5	5	5	5	5
7-8	7-8	1.50	83	4-5	4-5	5	5	5	5	3
7-8	7	1.45	63	5	5	5	5	5	5	5
7-8	7	1.40	70	4-5	4	4-5	5	5	5	5
7-8	7	1.40	87	4-5	4	4-5	5	5	5	5
7-8	7	1.42	65	4	4	4	5	5	5	4-5
7-8	7	1.41	68	3-4	4	3-4	5	5	5	4
7-8	7-8	1.60	55	5	4-5	5	4-5	5	5	5
6-7	5-6	1.45	78	3	3	3	4	5	5	5
6-7	5-6	1.40	62	3	3	2-3	4	5	5	5
7	5-6	1.46	62	2-3	2	2-3	3	5	5	5
7	6	1.50	70	3	3	3	4	5	5	5
7-8	7-8	1.49	90	5	5	5	5	5	5	5
7	6-7	1.47	84	4-5	4	4-5	4-5	5	5	5
7-8	7	1.60	58	4-5	4-5	4-5	4-5	5	5	5
6	3	1.51	48	2	2-3	2-3	3-4	5	5	5
7-8	7	1.60	60	4	3-4	4	4-5	5	5	5
6-7	6	1.49	64	4	4	4	4-5	5	5	5
7-8	7	1.50	83	4-5	5	4-5	5	5	5	5
7	6-7	1.44	44	4	4	4-5	5	5	5	5
7-8	6-7	1.60	43	2-3	3	3	3-4	5	5	5
7-8	7	1.60	47	5	4	5	5	5	5	5
6-7	4-5	1.44	61	2	2	2	2	5	5	5
6-7	4-5	1.50	46	2	2	2	2	5	5	5
7	5-6	1.40	67	4-5	4	4-5	4-5	5	5	5
6	4	1.70	81	4	4	4	4-5	4-5	4	4
7-8	7-8	1.50	78	4-5	4-5	4-5	5	5	5	5
7-8	7-8	1.50	61	4	4-5	4-5	5	5	5	5
6D	5	1.40	51	4-5	3	4	4	5	5	5
4-5	4	1.60	85	4	3-4	4	4	4-5	3	3
6-7	6	1.50	79	4-5	3	3-4	3-4	5	5	5
7-8	7-8	1.60	69	5	5	5	5	5	5	5
7-8	7-8	1.70	80	4	5	5	5	5	5	5
7-8	7-8	2.1	52	5	5	5	5	5	5	5
7-8	7	1.48	67	4-5	3	4-5	5	5	5	4

D - duller

Synthesia, a.s.

Synthesia is the largest Czech manufacturer of chemical specialities with more than 100 years’ tradition.

Synthesia respects the company objective to offer top products with high added value and specialized customer solutions, including not only production but also development activities and services.

We are the leading Central European producer of organic pigments and dyes and the only producer of high performance pigments in Central Europe. Our company has experience in sales all over the world, especially in the most demanding markets in Western and Eastern Europe as well as the U.S.A.



VERSAL®

Due to the same chemical structure, identical or very close matching colour shade and other important properties a large number of pigments can be replaced by Versal pigments.

The assortment VERSAL® is formed by various chemical types and can be used in wide range of application in such as coatings, printing inks, plastics, fibres, particularly if special technical properties are required.

The most significant part of VERSAL® pigments (High-Performance Pigments) is above all a provision of very good fastness to light and weathering, heat resistance, fastness to solvents and chemicals and due to these excellent properties can be used in the most demanding applications.

In this pattern card we introduce our wide range of organic powder pigments meeting the specific demands of printing industry. We are proud to be a European pigment producer offering high quality and consistent products in respect of colour as well as application properties. In addition to that, product safety and regulatory compliance are also our main focus.

PHYSICAL PROPERTIES AND FASTNESS

Light fastness - Xenotest

- determined by ČSN EN ISO 105-B02: 2000 (80 0147) and evaluated in 1/3 and 1/1 of standard depth and in full shade; by it degree 1 denotes the lowest fastness and degree 8 the highest one.

Density

- determined by ČSN EN ISO 787-10: 1997 (67 0520) in g/cm³

Oil absorption

- determined by ČSN EN ISO 787-5: 1997 (67 0520) in ml/100 g pigment

Fastness to solvents

- colouring of solvent after 24 h at 20 °C according to ISO grey scale is determined; degree 1 denotes the lowest fastness, degree 5 the highest one.

