

DyStar 

Working for your benefit.

Acramin[®] Imperon[®] K Imperon[®] HF

**Quality products from our own production sites.
Full service. Cost efficiency. Top fastness properties.
With DyStar you're unbeatable in pigment printing.**



Acramin and Imperon K are high-quality pigment preparations from DyStar that meet the steadily rising quality requirements encountered in various market segments.

Acramin/Imperon K pigment preparations are used for textile printing, pigment dyeing and coating of virtually all substrates used in the textile industry.

The broad spectrum of properties covered by the extensive Acramin/Imperon K product range offer users the basis for success in a wide variety of applications.

● **Product quality**

Top dispersion stability, constant viscosity, defined particle size

● **Colouristic properties**

Wide range of shades, brilliancy, colour strength

● **Processes**

Direct, discharge and resist printing, dyeing, coating, printing of special effects (e. g. matt white or matt coloured prints, gold and silver prints, 3D prints), printing in conjunction with other classes of colorant.

● **Application**

High process reliability, high reproducibility, suitable for use in automatic colour kitchens, compatibility in various printing systems

● **Colour fastness**

● **Cost-efficiency**

● **Ecology**

Optimum prints can be obtained by careful selection of Acramin/Imperon K pigment preparations. This greatly enhances competitiveness in this keenly competitive market segment.



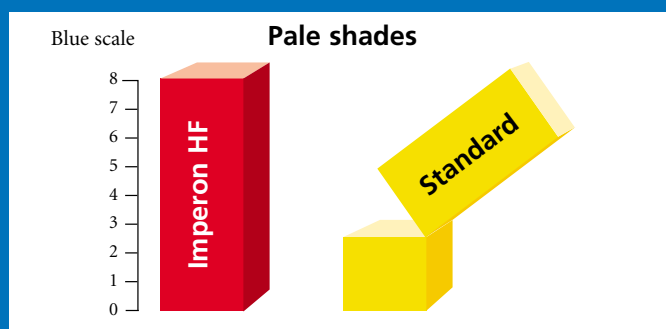
Pigment preparations of DyStar are produced in Mem Martins, Portugal.

Imperon HF “High-Fast” pigment preparations are innovative products manufactured exclusively with high-performance pigments and advanced milling and dispersing technologies.

In the past, it was virtually impossible to meet demands for high fastness properties and reliable production in pale shades, especially in the critical yellow to red shade area. Imperon HF pigment preparations solve the problem for pale shades, particularly in this critical shade area.

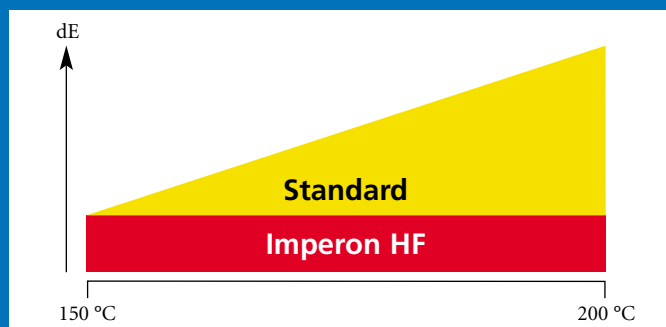
Example: Light fastness

Imperon HF products have far higher fastness properties than standard pigment preparations, especially in critical pale shades at concentrations below 5 g/kg.



Example: Heat stability ensures reliable production

Imperon HF pigment preparations have outstanding heat stability so there are no variations in shade as a result of common fluctuations in production conditions.



Imperon HF pigment preparations provide genuine added value to textiles. Their excellent properties can be used for a wide range of long-lasting indoor and outdoor products.

Imperon HF	Coating	Fastness to light and weathering	<ul style="list-style-type: none"> ● Technical textiles ● Tents ● Awnings ● Blinds ● Wall coverings ● Automotive textiles ● Burn-out styles
		Fastness to PVC-coatings	
	Printing	Fastness to dry cleaning	
		Fastness to light at high temperatures	
	Dyeing	Heat stability	

Imperon HF pigment preparations highlight our innovative strength and our expertise in serving a quality-conscious market segment.

Acramin Imperon K

Imperon Yellow K-5G 110

Imperon Yellow K-4G

Imperon Yellow K-3G

Imperon Yellow K-2G

Imperon Yellow K-GL 01

Imperon Yellow K-R

Imperon Golden Yellow K-RN

Pigment concentration g/kg

20

20

20

20

30

20

20

Flat-bed printing on
mercerised cotton, full strength
and reduction 1:4
(1:19 reduction for Black).
The fastness properties were
tested on prints of 1/1 S. D. and
1/12 S. D. on cotton
(Thermostability PES/CO).



Light fastness (Xenon arc)
ISO 105-B02

1/1
1/12

7-8R
6

8
7

7-8
3-4

7
2-3

8
7-8

8
4

3
1-2

Weather (artificial)
ISO 105-B04

150 h

1/1
1/12

7-8
6

7
6

7-8
3

6
1

8
6

7
4

1-2
1

300 h

1/1
1/12

7-8
5

7
6

7
2

4-5
1

7-8
6

6
3-4

1
1

Dry cleaning
(Perchloroethylene)
ISO 105-D01

C

1/1

1

4-5

5

4-5

4-5

4-5

2

SO

1/1

1

4

3

1

5

3-4

1-2

C

1/12

1

4-5

3-4

2

4-5

4-5

1

SO

1/12

3-4

4

4-5

2

5

5

3

Hypochlorite
bleach (severe)
ISO 105-N01

C

1/1

5

5

5

5

5

5

5

C

1/12

5

5

5

5

5

5

5

Dry heat fixation
(30 s 180 °C)
ISO 105-P01

C

1/1

5

5

5

5

5

5

5

PES

1/1

3

5

5

5

5

5

5

CO

1/1

4-5

5

5

5

5

5

5

C

1/12

5

5

5

5

5

5

5

PES

1/12

4

5

5

5

5

5

5

CO

1/12

5

5

5

5

5

5

5

Thermostability
PES/CO

3 min 170 °C 1/1

○

●

●

●

●

●

○

1 min 200 °C 1/1

○

●

●

●

●

●

○

3 min 170 °C 1/12

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●

●

●

○

●

-

1 min 200 °C 1/12

-

●

●

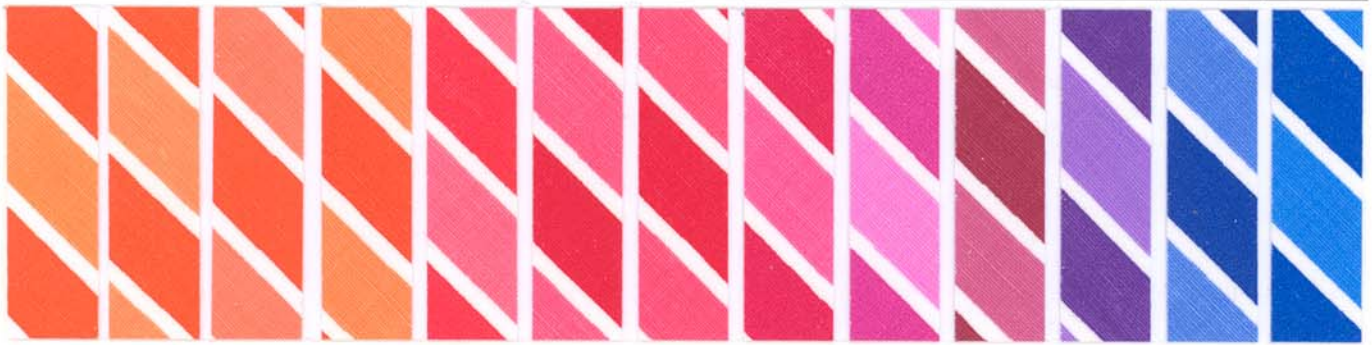
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Imperon Orange K-G	Imperon Orange K-R	Imperon Orange K-GR	Acramin Orange FG 01	Imperon Red K-G3R	Imperon Red K-GRE	Imperon Red K-GC	Imperon Red K-B	Imperon Brilliant Pink K-3BL	Imperon Bordeaux K-RR	Imperon Violet K-B	Imperon Blue K-RR	Imperon Blue K-B
20	30	30	20	20	30	30	20	20	20	10	20	20



6-7	8	8D	6-7	8	6-7B	8	7B	8	7	8	8	8
2-3	4-5	6D	2-3	6	4-5	4	5	8	4	7	6Y	7Y
5	7-8	7	3-4	7-8	6	6-7	5-6B	7-8	5	7	7-8	8
2-3	4	4	1-2	5-6	3	4-5	4B	7	2	6	7Y	7
4-5	7	6-7	3	7	4-5	6	4-5B	7Y	4-5	7	7-8	7Y
2-3	3-4	2-3	1	5	2	3-4	2	7Y	1-2	6	6Y	6-7Y
3-4	3	4	3-4	1	2-3B	4-5	5	5	1	5	4	4
2	1	3-4	2	1	1-2	4	4-5	5	1-2	4-5	3	3-4
2	1	4	2-3	1	1-2B	4	4	5	1	4-5	1-2	3
3	3-4	4-5	3	2-3	3	5	5	5	3-4	5	4	4
5	5	5	4-5	5	5	5	5	2-3	5	5	5	5Y
5	5	5	4	5	4-5	5	5	2	4-5	4	4	5Y
5	5	5	5	5	5	5	5	5	5	5	5	5
5	3-4	5	5	5	5	5	5	5	5	5	5	5
5	5	5	5	5	5	5	5	5	5	5	5	5
5	3Y	5	5	4-5	5	5	5	5	3-4Y	5	5	5
5	3-4	5	5	5	5	5	5	5	5	5	5	5
5	5	5	5	5	5	5	5	5	5	5	5	5
○	○	○	○	-	-	●	●	●	-	●	●	●
○	○	○	○	-	-	●	●	●	-	●	●	●
-	-	-	-	-	-	-	○	○	-	●	-	-
-	-	-	-	-	-	-	○	○	-	●	-	-

C = change of shade

SO = solvent staining

PES = staining on polyester

CO = staining on cotton

Imperon Blue K-BG	Acramin Navy Blue FBC 150%	Imperon Green K-G 125	Acramin Brown FRRL	Imperon Brown K-BL	Imperon Dark Brown K-BR 01	Imperon Dark Brown K-RT	Acramin Black FBB 01	Imperon Black K-GF	Acramin White DRN 01	Acramin Printing White VRW
10	20	20	40	30	40	30	40	40	500	1000



8	8	8	8	8	7	8	8	8		
7	6-7Y	7-8	6	6	5-6	7-8	8	8		
7-8	7	8	5	6-7	5Y	7-8	8	8		
7-8	7	7	2-3	4-5Gr	1Gr	7	7	7		
7-8	7	7-8	4	5Gr	5Gr	7-8	8	8		
7	6	7	1	1Gr	1Gr	7	7	7		
5	4-5	5	4	5	5	5	5	5		
4	4	5	5	4-5	5	5	4-5	5		
4-5	2R	5	4	5	5	5	5	5		
5	4	5	5	5	5	5	4-5	5		
5	5	5	5	5	5	5	5	5		
5	4-5	5	5	4-5Y	5	5	5	5		
5	5	5	5	5	5	5	5	5		
5	5	5	5	5	5	5	5	5		
5	5	5	5	5	5	5	5	5		
5	5	5	5	5	5	5	5	5		
5	5	5	5	5	5	5	5	5		
●	●	●	-	○	○	●	●	●		
●	●	●	-	○	-	●	●	●		
○	-	●	-	-	-	●	●	●		
○	-	●	-	-	-	●	○	○		

Y = yellower B = bluer R = redder Gr = greener D = duller

Imperon Yellow HF-5G	Imperon Golden Yellow HF-R	Imperon Red HF-S	Imperon Red HF-6B	Imperon Blue HF-R	Imperon Green HF-G	Imperon Green HF-B	Imperon Red Brown HF-G	Imperon Black HF-R	Imperon HF "High-Fast"
20	30	30	30	20	40	30	20	30	



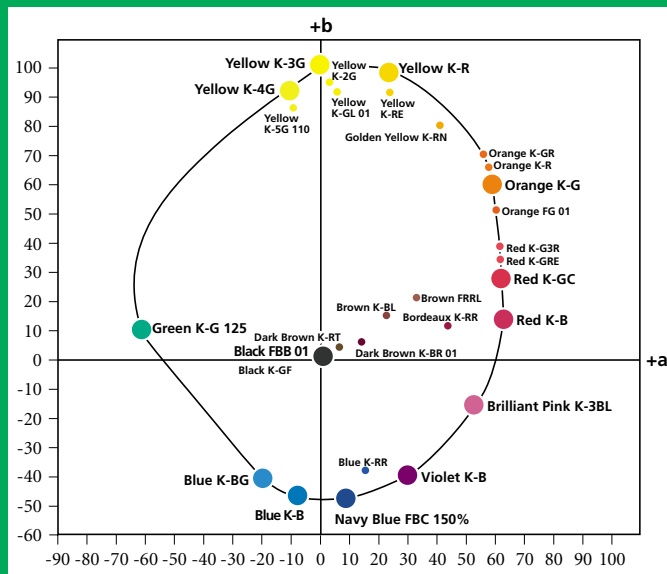
Flat-bed printing on mercerised cotton, full strength and reduction 1:4 (1:19 reduction for Black). The fastness properties were tested on prints of 2, 1 and 0.5 g/kg on PES/CO.

8	8	7-8	7	7-8	8	8	8	7	2 g/kg	Light fastness (Xenon arc) ISO 105-B02
8	8	7-8	7	7-8	8	8	8	7	1 g/kg	
8	8	7-8	7	7-8	8	8	8	7	0.5 g/kg	
8	7-8	7-8	6	7-8	7-8	8	8	6-7	2 g/kg	Weather (artificial) ISO 105-B04 500 h
8	7-8	7-8	6	7-8	7-8	8	8	6-7	1 g/kg	
8	7-8	7-8	6	7-8	7-8	8	8	6-7	0.5 g/kg	
5	4-5	4-5	4-5	3	5	5	5	5	2 g/kg	Light fastness at high temperatures (CO) ISO 105-B06 3 cycles
5	4-5	4-5	4-5	3	5	5	5	5	1 g/kg	
5	4-5	4-5	4-5	3	5	5	5	5	0.5 g/kg	
4	4	4-5	4	3	4-5	4-5	4-5	4-5	2 g/kg	Light fastness at high temperatures (PES) SAE J 1885; 488 Kj
4	4	4-5	4	3	4-5	4-5	4-5	4-5	1 g/kg	
4	4	4	4	3	4	4-5	4-5	4-5	0.5 g/kg	
5	4	4-5	4-5	4-5Y	5	5	5	4	2 g/kg	Dry cleaning ISO 105-D01 (Perchloroethylene)
5	4	4-5	4-5	4Y	5	5	5	4	1 g/kg	
5	4	4-5	4-5	4Y	5	5	5	4	0.5 g/kg	
5	5	4-5	5	5	5	5	5	5	2 g/kg	Dry heat fixation ISO 105-P01
5	5	4-5	5	5	4-5	5	5	5	1 g/kg	
5	4-5	4	5	5	4-5	5	5	5	0.5 g/kg	
4-5	4-5	4-5	4	3-4	4-5	5	5	4-5	2 g/kg	30 s 180 °C
4-5	4-5	4	4	3	4	5	5	4-5	1 g/kg	
4-5	3-4	3	3-4	3	4	4-5Y	5	4-5	0.5 g/kg	
●	●	●	●	●	●	●	●	●		Thermostability

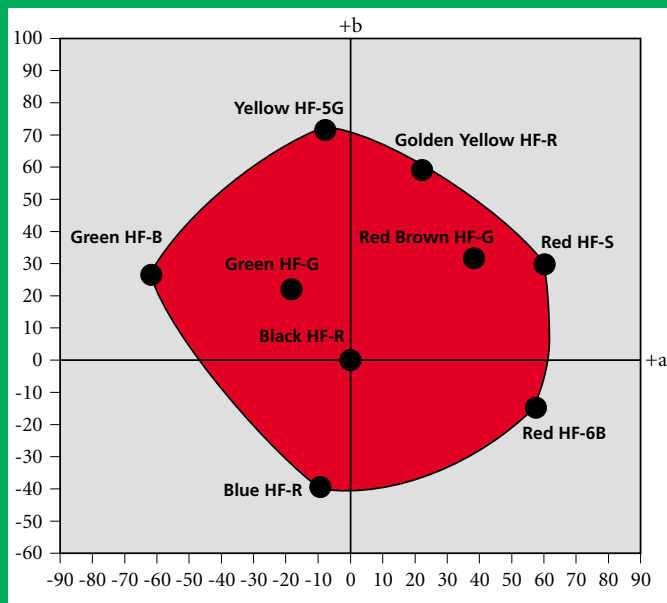
● = suitable ○ = limited suitability - = not recommended

Colorimetric position in the CIE Lab color space

Acramin / Imperon K



Imperon HF



We provide support for the entire production process

DyStar offers you the benefits of experienced staff and modern service laboratories round the world. Contact us – we will be happy to help you select the right pigments, work out recipes to meet your customers' requirements and provide support throughout the entire production process.



Colour matching



Printing



Sampling

Application

Printing recipe

The prints illustrated in the pattern section were produced using the following general printing recipe.

Because the pigment printing system can affect fastness properties, shade and brilliancy in many different ways, we do not give any specific recommendations.

Substrate

Cotton, bleached and mercerised

White-spirit-free stock/reduction thickening

Stock	Reduction	
x g	x g	demineralised water
0–10 g	0–10 g	emulsifier
220 g	80 g	binder (acrylate-based mixed polymer)
y g	y g	synthetic thickener (acrylate-based)
0–15 g	0–15 g	silicone additive
0–20 g	0–20 g	cross linking agent
0–15 g	0–15 g	softener
0–5 g	0–5 g	ammonia 25%
0–3 g	0–3 g	defoamer
1,000 g	1,000 g	
pH: 8–8.5		

Viscosity: 80 dPa.s

(measured with Viscotester VT 02/System 1 from Haake Mess-Technik GmbH & Co., Karlsruhe, Germany)

Print paste

x g	Acramin/Imperon pigment preparation
10 x g	stock thickening (= 10 times amount of pigment preparation)
Remainder	reduction thickening
1,000 g	

For concentrations of up to 5 g/kg Acramin/Imperon pigment preparation, only reduction thickening is used. For higher concentrations the system outlined above must be used. However, the instructions of the auxiliary manufacturers must be observed to ensure that the required properties are obtained.

Printing

flat-bed printing,
screen: 77T gauze;
8 mm magnetic roller, 2 passes

Drying

2 min at 100 °C

Fixation

hot air at 150 °C for 5 min

A full range of products, global service and ongoing innovation create tangible benefits for our customers. Worldwide.



● **Austria/Eastern Europe**
 DyStar Bencolor Farben GmbH
 Akaziengasse 30
 Postfach 42
 1234 Vienna
 Tel.: ++43-1-699 87 17
 Fax: ++43-1-699 45 30
 DyStar.Austria@DyStar.com

● **Belgium**
 S.A. DyStar Benelux N.V.
 Avenue Louise 143
 Louizalaan
 1050 Brussels
 Tel.: ++32-2-5 35-64 70
 Fax: ++32-2-5 35-64 73
 DyStar.Benelux@DyStar.com

● **Brazil**
 DyStar Ltda.
 Rua Alexandre Dumas, 1711-2º andar
 04717-004 – Chác. Sto. Antônio
 São Paulo / SP
 Tel.: ++55-11-51 85 41 73
 Fax: ++55-11-51 85 42 24
 DyStar.Brazil@DyStar.com

● **China/Hong Kong**
 DyStar China Ltd.
 18/F, Yen Sheng Centre
 64 Hoi Yuen Road
 Kwun Tong, Hong Kong
 Tel.: ++85-2-29 55 33 88
 Fax: ++85-2-29 55 11 88
 DyStar.China@DyStar.com

● **France**
 DyStar France s.a.r.l.
 30, avenue Edouard Belin
 92566 Rueil Malmaison Cedex
 Tel.: ++33-1-41 39 12 20
 Fax: ++33-1-41 39 12 49
 DyStar.France@DyStar.com

● **Germany**
 DyStar Vertriebe D-A-CH/Nordica
 65926 Frankfurt am Main
 Tel.: ++49-69-3 05-61 21
 Fax: ++49-69-3 05-1 64 91
 DyStar.Germany@DyStar.com

▲ **DyStar Headquarters**
 ▽ **Regional Centres**
 ● **Subsidiaries**

■ **Production Sites**
 ◆ **Research & Development Agencies in another 50 countries**

● **India**
 DyStar India Limited
 Mumbai - Agra Road
 Balkum, Thane 400 608
 Tel.: ++91-22-5 41 09 99
 Fax: ++91-22-5 41 18 34
 DyStar.India@DyStar.com

● **Indonesia**
 PT DyStar Colours Indonesia
 Menara Global Building
 22nd Floor
 Jln. Gatot Subroto Kav. 27
 Jakarta 12930
 Tel.: ++62-21-527 05 50
 Fax: ++62-21-527 05 20
 DyStar.Indonesia@DyStar.com

● **Italy**
 DyStar Italia S.r.l.
 Via delle Groane 126
 20024 Garbagnate Milanese (MI)
 Tel.: ++39-02-99 44 01
 Fax: ++39-02-99 02 83 91
 DyStar.Italy@DyStar.com

● **Japan**
 DyStar Japan Ltd.
 7-20, Azuchimachi 1-chome,
 Chuo-ku, Osaka 541-0052
 Tel.: ++81-6-62 63 66 72
 Fax: ++81-6-62 63 66 91
 DyStar.Japan@DyStar.com

● **Korea**
 DyStar Korea Ltd.
 141-28, 10th fl.
 Dong Shin Building
 Samsung-dong, Kangnam-gu.
 P.O. Box Kangnam 537
 135-090 Seoul
 Tel.: ++82-2-34 52 78 78
 Fax: ++82-2-34 52 78 76
 DyStar.Korea@DyStar.com

● **Mexico**
 DyStar de México S.A. de C.V.
 Av. Coyoacán 1553
 Col. del Valle
 03100-México, D.F.
 Tel.: ++52-55-57 28 33 90
 Fax: ++52-55-57 28 33 91
 DyStar.Mexico@DyStar.com

● **Portugal**
 DyStar Anilinas Têxteis, Lda.
 Rua Manuel Pinto de Azevedo, 626
 4100-320 Porto
 Tel.: ++351-22-6 15 31 80
 Fax: ++351-22-6 15 31 90
 DyStar.Portugal@DyStar.com

● **Singapore**
 DyStar Singapore Pte. Ltd.
 152 Beach Road
 #37-00 The Gateway East
 Singapore 189721
 Tel.: ++65-2 98 79 22
 Fax: ++65-2 95 53 08
 DyStar.Singapore@DyStar.com

● **South Africa**
 DyStar South Africa (Pty) Ltd.
 16 Henwood Road, P.O. Box 1421
 Pinetown 3610
 Tel.: ++27-31-710 65 09
 Fax: ++27-31-7 09 37 32
 DyStar.SouthAfrica@DyStar.com

● **Spain**
 DyStar Hispania, S.A.
 c/.Famadas, 37-57
 08907 Hospitalet de Llobregat
 Tel.: ++34-93-2 64 04 40
 Fax: ++34-93-2 64 04 58
 DyStar.Spain@DyStar.com

● **Taiwan**
 DyStar Taiwan Ltd.
 5th Fl., No. 196, Sec. 2
 Chien Kuo N. Road
 104 Taipei, Taiwan, R.O.C.
 Tel.: ++886-2-25 16 37 77
 Fax: ++886-2-25 16 81 99
 DyStar.Taiwan@DyStar.com

● **Thailand**
 DyStar Thai Ltd.
 193 Lake Rajada Building
 17th floor
 Ratchadapisek Road
 Klongtoey, Bangkok 10110
 Tel.: ++66-2-2 64 04 70
 Fax: ++66-2-2 64 04 74
 DyStar.Thai@DyStar.com

● **Turkey**
 DyStar Tekstil Boyalari
 Ticaret Limited Sirketi
 Merkez Efendi Mahallesi
 Yılanlı Ayazma Sokak 14-16
 34020 Topkapı/Istanbul
 Tel.: ++90-212-482 01 00
 Fax: ++90-212-482 01 06
 DyStar.Turkey@DyStar.com

● **United Kingdom**
 DyStar UK Ltd.
 Pennine Business Park/Unit 2
 Bradley Road, Huddersfield
 West Yorkshire HD2 1RA
 Tel.: ++44-14-84 41 14 00
 Fax: ++44-14-84 41 14 01
 DyStar.UK@DyStar.com

● **USA**
 DyStar L.P.
 9844-A Southern Pine Boulevard
 Charlotte, NC 28273
 Tel.: ++1-704-561 30 00
 Fax: ++1-704-561 30 05
 DyStar.USA@DyStar.com