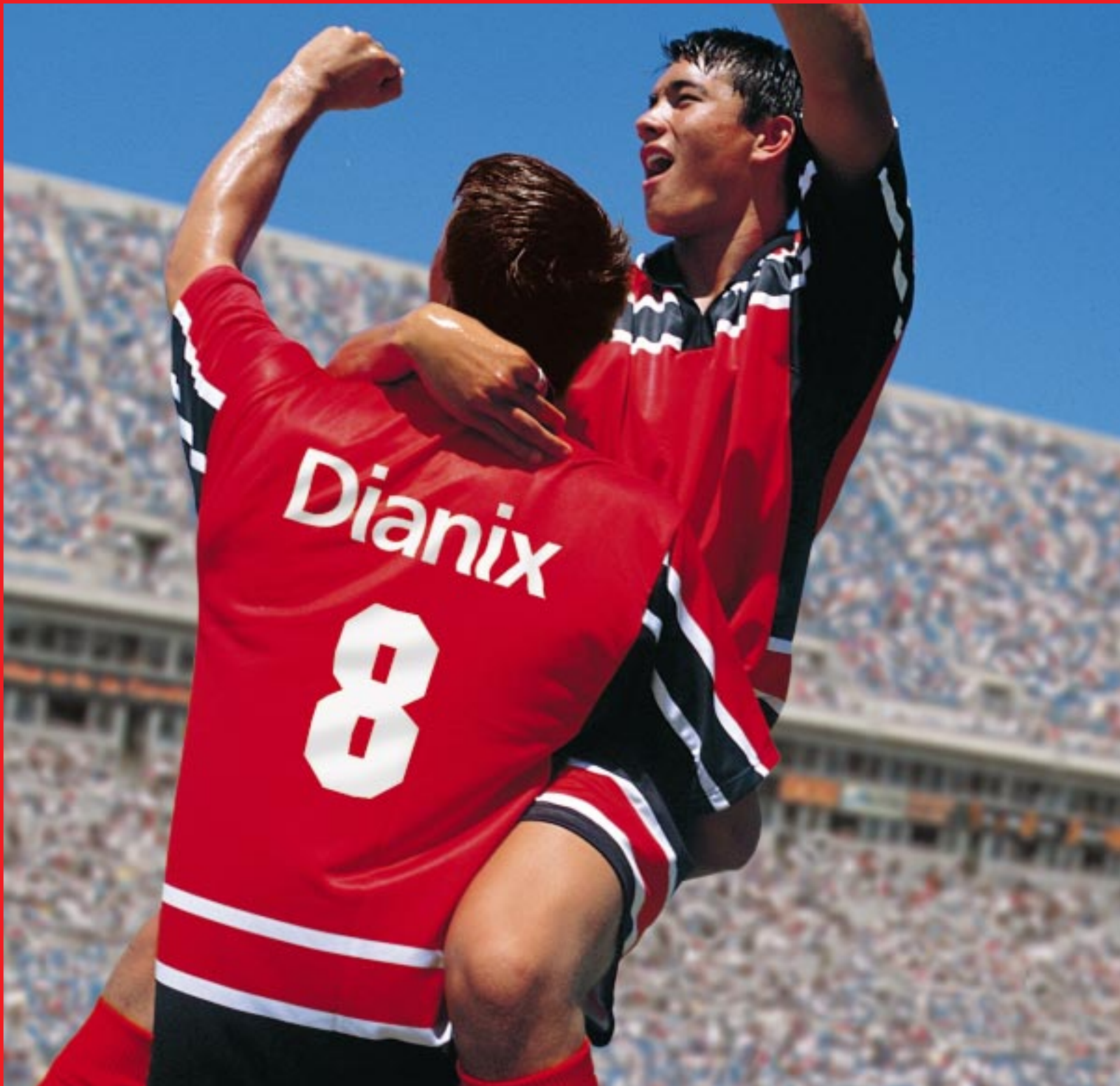


Dianix[®] CC

Economical disperse dyes for rapid and reliable dyeing of polyester and polyester blends



Key benefits

Dianix CC dyes are compatible and economical medium-energy disperse dyes for rapid and reliable dyeing of polyester and polyester blends offering:

- Controlled Coloration – excellent Right-First-Time performance through dyestuff compatibility
- excellent build-up and economical dye recipes
- high productivity through optimised rapid dyeing, using Optidye P
- good all round colour fastness
- full compliance with Öko-Tex Standard 100
- versatility in exhaust and continuous dyeing

Controlled Coloration

Dianix CC dyes are designed for reliable, Right-First-Time dyeing, resulting from the following key features:

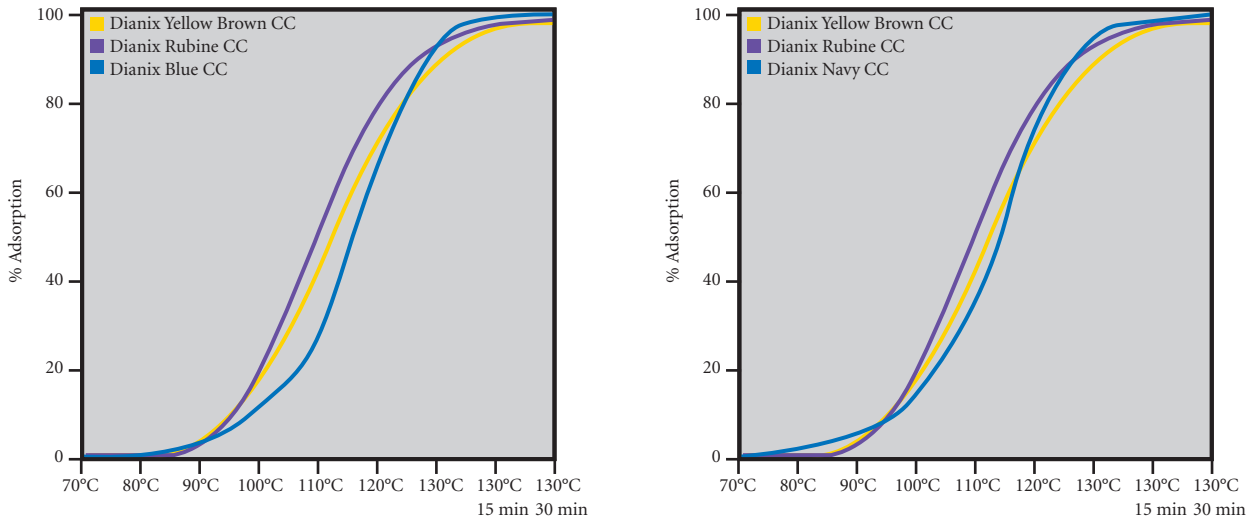
- compatible rates of adsorption
- compatible, on-tone build-up
- compatible and rapid diffusion
- compatible stability to pH variation
- shade stability to time and temperature variations

Dianix CC

Compatible adsorption

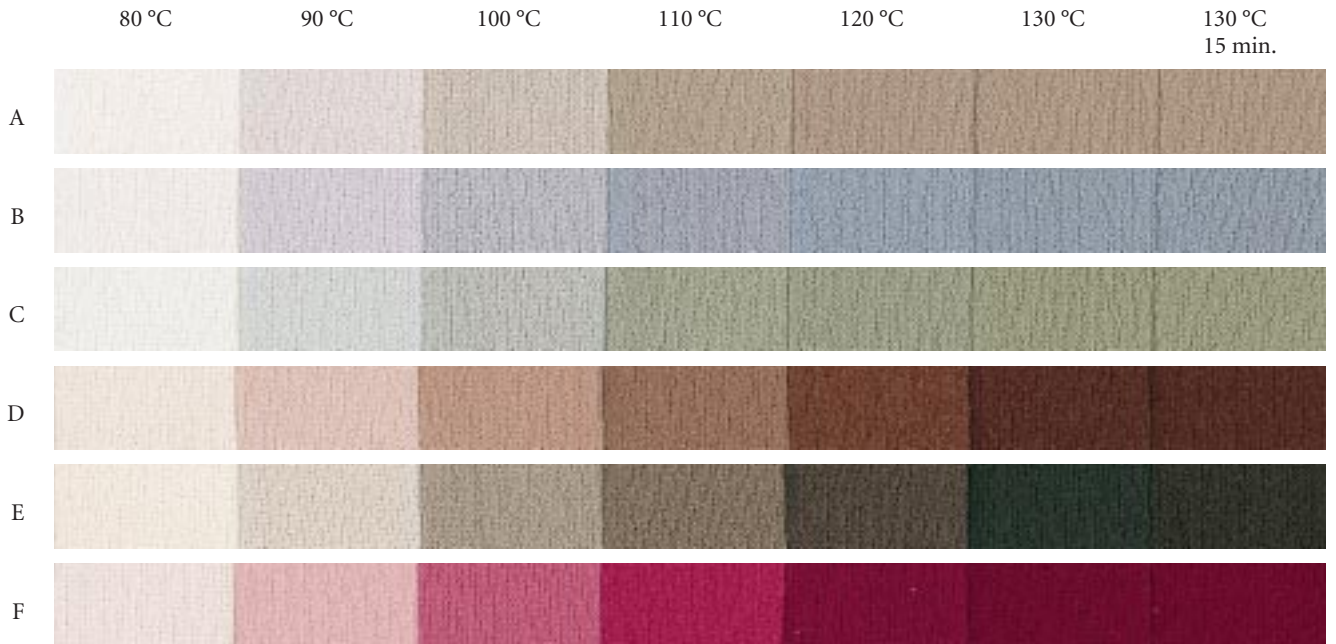
- ▶ Increased levelness of dye uptake
- ▶ Less time required for heating to top dyeing temperature

Individual dye adsorption profiles (1/1 Standard Depth)



Compatible, on-tone exhaustion

- ▶ Shade stays on tone throughout the dyeing process
- ▶ Improved chance of passing shade inspection first time

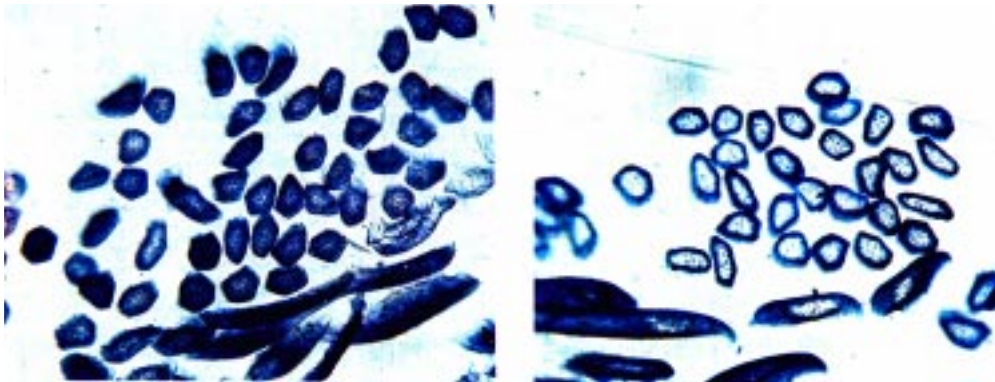


Dianix (% on weight of polyester)	A	B	C	D	E	F
Yellow Brown CC	0.113	0.043	0.142	0.91	0.70	0.31
Rubine CC	0.013	0.023	0.008	0.14	0.05	0.48
Blue CC	0.023	0.061	0.055	–	–	–
Navy CC	–	–	–	0.25	0.50	0.11

Compatible and rapid diffusion

- ▶ Rapid dyeing combined with excellent shade reproducibility
- ▶ Less danger of shade change during finishing

Microscopic cross sections after dyeing 15 minutes at 130 °C



Dianix Navy CC

Typical high energy dye
C. I. Disperse Blue 79

On-tone migration

- ▶ Equal shade across and along the fabric
- ▶ Improved chance of passing shade inspection first time even in difficult ternary shades



Dianix (% on weight of polyester)	1	2	3
Yellow Brown CC	0.113	0.043	0.142
Rubine CC	0.013	0.023	0.008
Blue CC	0.023	0.061	0.055

Dianix CC

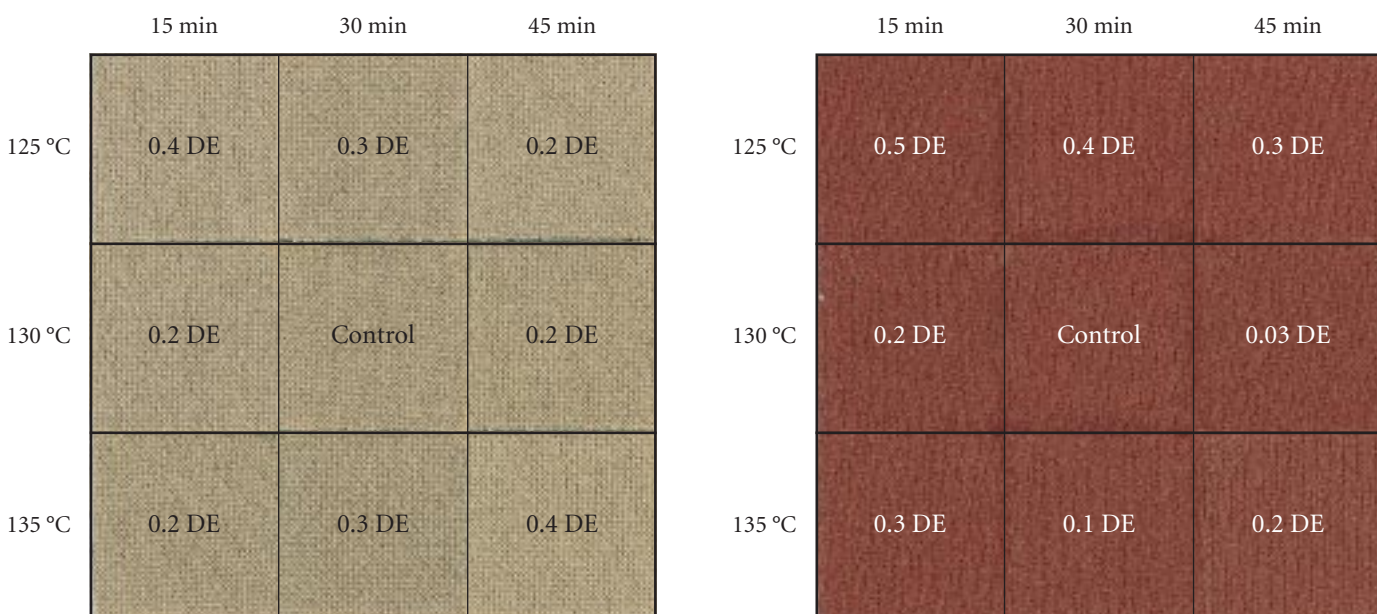
Shade stability of trichromat dyes to pH variations

- ▶ Safety margin against unexpected variations in pH
- ▶ Improved chance of passing shade inspection first time



Shade stability to time/temperature variations

- ▶ Safety margin against unexpected variations in process conditions
- ▶ Improved chance of passing shade inspection first time even in difficult ternary shades

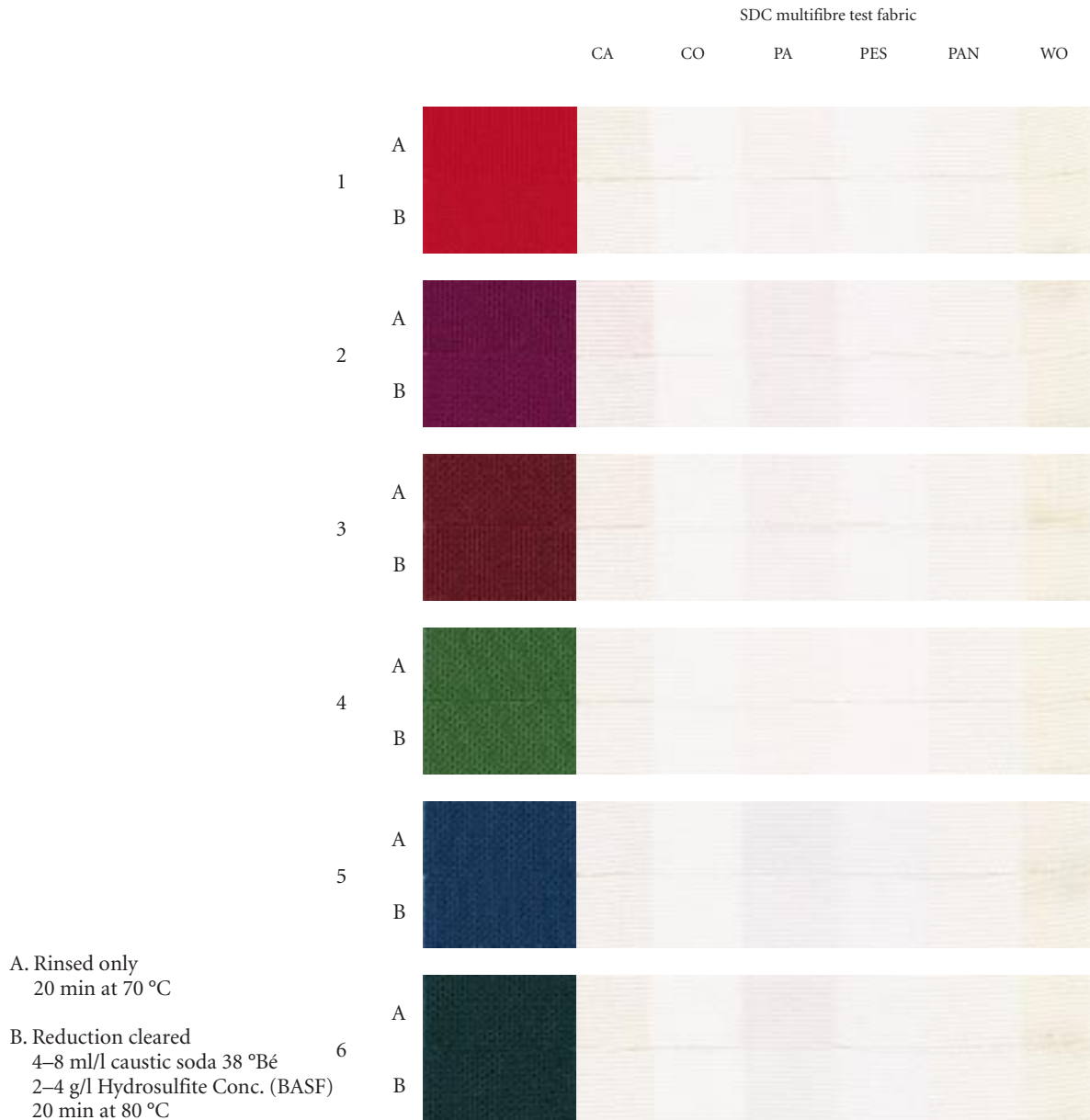


0.113% Dianix Yellow Brown CC
 0.013% Dianix Rubine CC
 0.023% Dianix Blue CC

0.91% Dianix Yellow Brown CC
 0.14% Dianix Rubine CC
 0.25% Dianix Navy CC

Wash fastness of Dianix CC dyes on 100% polyester

C06/B2S (50 °C) wash test (after heat setting 30 seconds at 180 °C)



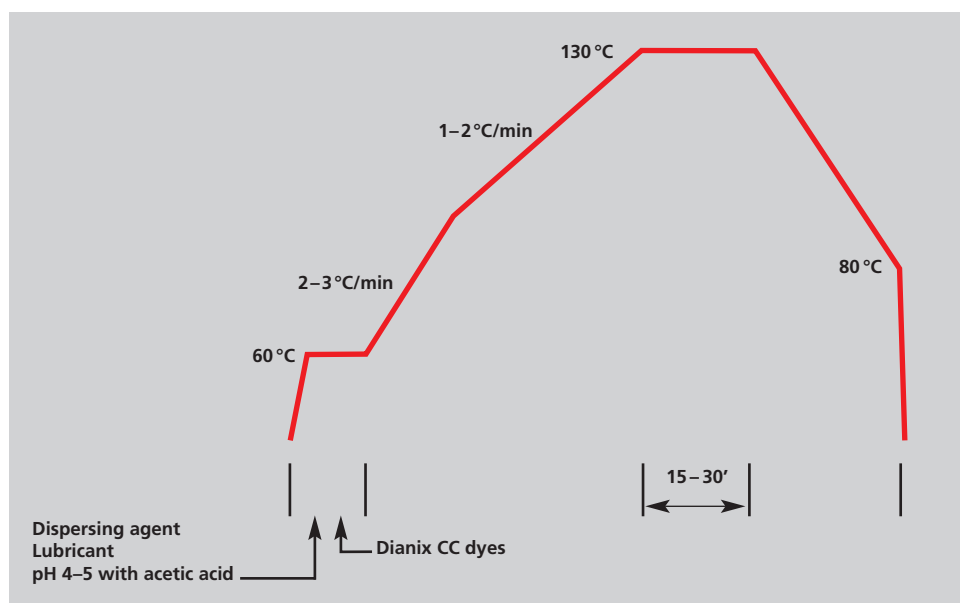
Dianix (% on weight of polyester)	1	2	3	4	5	6
Yellow CC	–	–	–	0.11	–	–
Yellow Brown CC	0.57	0.013	0.42	0.193	–	–
Rubine CC	0.16	0.43	0.164	–	–	–
Blue CC	–	0.063	0.055	0.124	–	–
Navy CC	–	–	–	–	0.86	–
Black CC-R	–	–	–	–	–	0.90

Dianix CC

Dyeing processes for 100% polyester

Piece Dyeing

General process for standard polyester; use of the Optidye P software package is recommended to optimise the process for specific fabrics/conditions

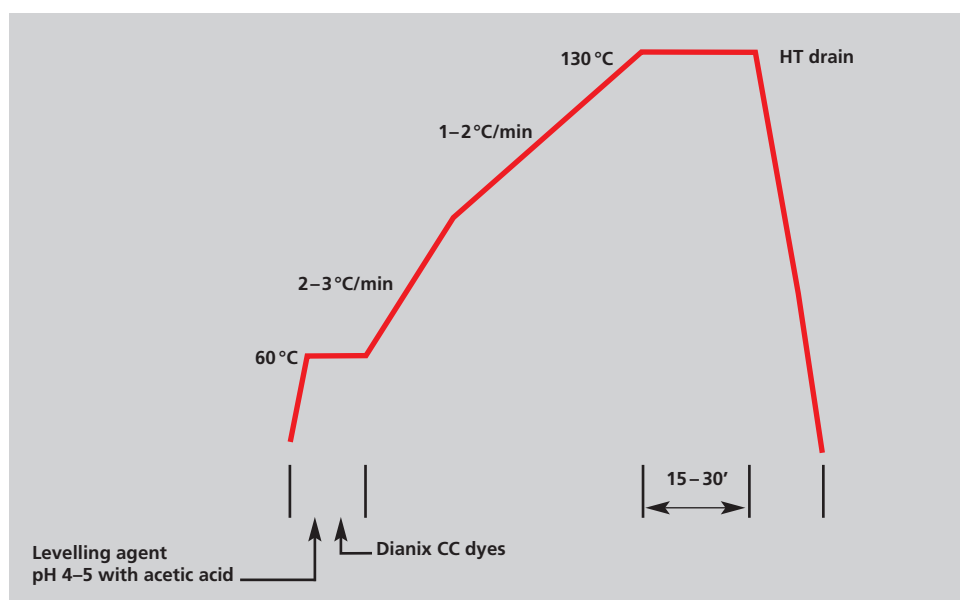


Dispersing agent:
1.0-2.0 g/l Setamol BL or
0.5-1.0 g/l Avolan IS

Lubricant:
1.0-2.0 g/l Primasol Jet or
1.0-2.0 g/l Persoftal L

Package Dyeing

General process for standard polyester; use of the Optidye P software package is recommended to optimise the process for specific yarns/conditions



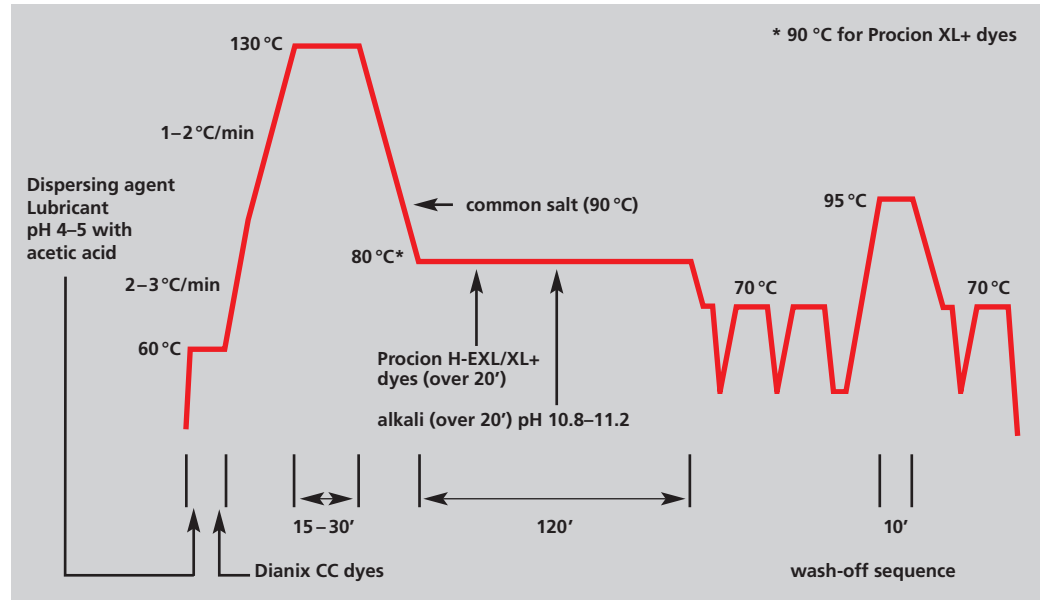
Dispersing/levelling agent:
1.0-2.0 % Levegal DLP

Dyeing processes for polyester/cellulose blends

Piece Dyeing

Dianix CC dyes can be combined with **Procion H-EXL** or **Procion XL+** reactive dyes in highly productive, one-bath dyeing processes

Select XL process

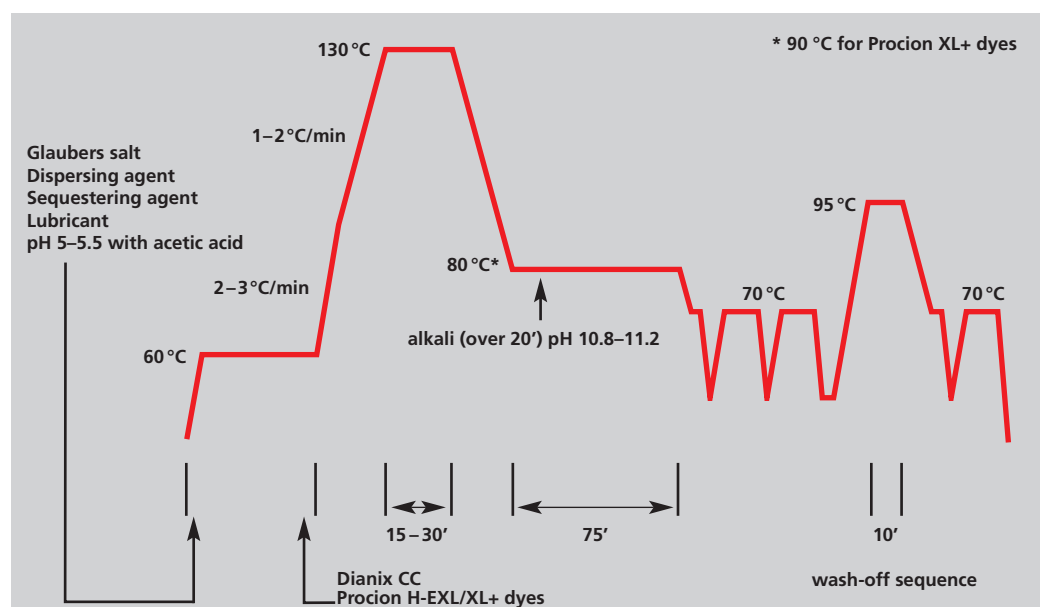


Dispersing agent:
1.0-2.0 g/l Setamol BL or
0.5-1.0 g/l Avolan IS

Lubricant:
1.0-2.0 g/l Primasol Jet or
1.0-2.0 g/l Persoftal L

For full application details, refer
to the Polyester/Cellulose
Technical Manual, Ref. 02.0059-00

New Select process



Dispersing agent:
1.0-2.0 g/l Setamol BL or
0.5-1.0 g/l Avolan IS

Sequestering agent:
0.5-2.0 g/l Dekol SAD

Lubricant:
1.0-2.0 g/l Palatex PC

For full application details, refer to the Polyester/Cellulose Technical Manual, Ref. 02.0059-00

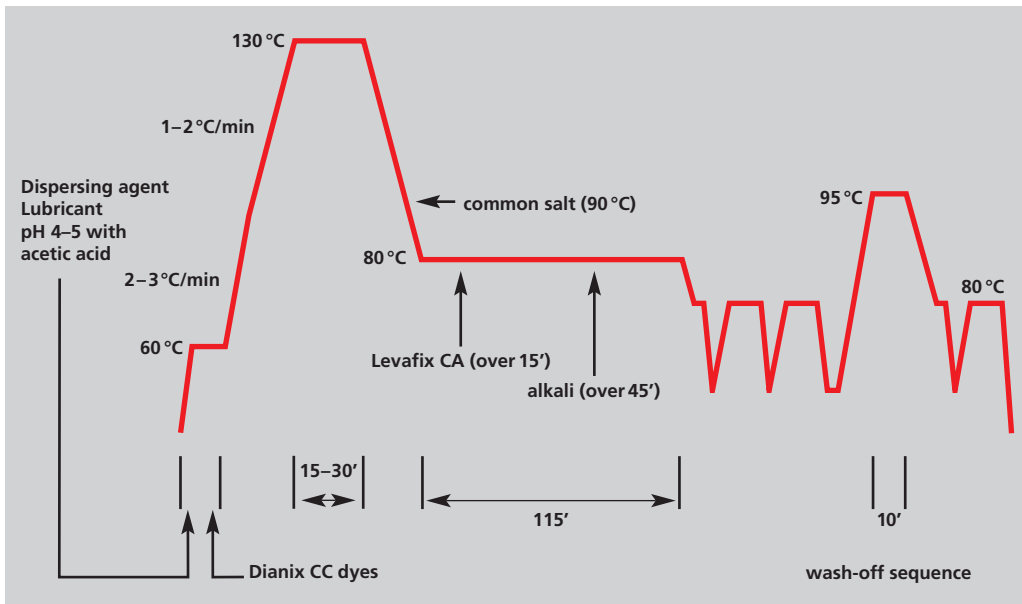
Dianix CC

Dyeing processes for polyester/cellulose blends

Piece Dyeing

Dianix CC dyes can also be combined with **Levafix CA** reactive dyes in a highly productive, one-bath dyeing process

Select CA process



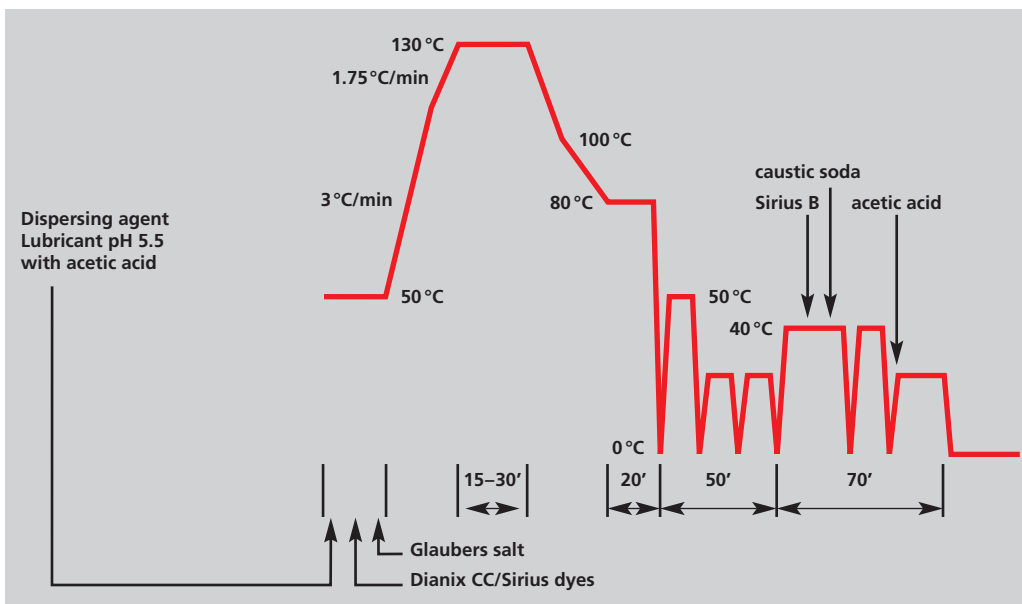
Dispersing agent:
1.0-2.0 g/l Setamol BL or
0.5-1.0 g/l Avolan IS

Lubricant:
1.0-2.0 g/l Primasol Jet or
1.0-2.0 g/l Persoftal L

For full application details, refer to the Polyester/Cellulose Technical Manual, Ref. 02.0059-00

One-bath dyeing with Dianix CC and Sirius direct dyes

Dianix CC dyes can be combined with selected **Sirius** direct dyes for the most productive one-bath process for meeting moderate wet fastness requirements



Dispersing agent:
1.0-2.0 g/l Setamol BL or
0.5-1.0 g/l Avolan IS

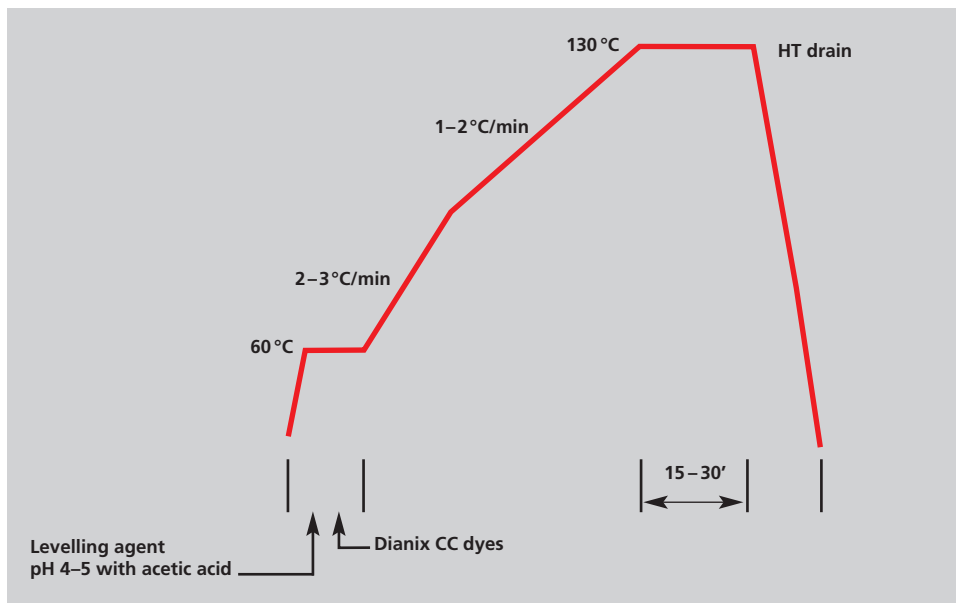
Lubricant:
1.0-2.0 g/l Primasol Jet or
1.0-2.0 g/l Persoftal L

For full application details, refer to the Polyester/Cellulose Technical Manual, Ref. 02.0059-00

Dyeing processes for polyester/cellulose blends

Package Dyeing

Rapid two bath dyeing processes are recommended, combining **Dianix CC** dyes with **Procion H-EXL**, **Procion XL+**, **Levafix CA** or **Remazol** reactive dyes



Dispersing/levelling agent:
1.0–2.0 % Levegal DLP

For details of reactive dye application processes please refer to the following literature:

Procion H-EXL
Standard Operating Procedures

Procion XL+
Standard Operating Procedures

Levafix/Remazol
Reactive dyes pattern card
(ref: 01.1010-00)

Notes on Processes

Dye Selection for the New Select process

Dianix CC dyes are suitable with the following exceptions:

- If a black is required, use Dianix Black CC-3R

All Procion H-EXL and Procion XL+ dyes are suitable with the following exceptions:

- In place of Procion Yellow XL+, use Procion Yellow H-EXL

Process Times

The following table indicates typical processing times for polyester/cellulose:

Select XL with Dianix CC and Procion H-EXL or Procion XL+ reactive dyes	415 minutes
New Select with Dianix CC and Procion H-EXL or Procion XL+ reactive dyes	400 minutes
Select CA with Dianix CC and Levafix CA reactive dyes	390 minutes
Dianix CC and Sirius direct dyes	290 minutes

The auxiliaries used in the processes are registered to and supplied by the following companies:

BASF AG	Setamol BL	Bayer AG	Avolan IS
	Primasol Jet		Persoftal L
	Dekol SA-D		Levegal DLP
	Palatex PC		

Eco-profile

Heavy metal content

- well below ETAD limit value guidelines

AOX

- very high exhaustion levels minimise AOX in effluent

MAK Amines

- no MAK III A1 or A2 amines generated by reductive cleavage
- comply with German Consumer Goods Ordinance

Colour in effluent

- very high exhaustion levels minimise colour in effluent

COD in effluent

- high powder strength minimises COD from dispersant in effluent
- excellent Right-First-Time performance minimises reprocessing

Öko-Tex Standard 100

- all Dianix CC dyes conform to Öko-Tex Standard 100

Dianix CC

Notes on the pattern pages

Suitability ++ Suitable
 + Suitable with restrictions
 – Not suitable

Level uptake 1 Limited
 2 Good
 3 Very Good

Rate of dyeing

Shows the percentage dyestuff adsorption during the dyeing process of a 1/1 SD depth of shade, without levelling agent. In the case of navies and blacks, the ISO Light Navy/Black depth was dyed.

Build-up

Indicates the increase in visual depth with concentration of the dyestuff.

Temperature dependency (Thermofixation process)

Indicates the optimum thermofixation temperature for the dyestuff and the yield variation with temperature.

Fastness properties

Light fastness was tested at the concentrations indicated.

Other fastness tests were carried out on 1/1 SD dyeings (Note: depth used for navies and blacks are as specified above in Rate of Dyeing). Alkali cleared patterns were treated for 20 minutes at 80 °C with soda ash.

Light ISO 105-B02 (Xenon)
 AATCC 16A-1993 (Carbon Arc)

Sublimation ISO 105-P01
 Intermediate: 30 seconds at 180 °C

Water ISO 105-E01

Wash fastness ISO 105-C06/B2S
 AATCC 61 IIA (120 °F/49 °C)

Perspiration ISO 105-E04

Rub fastness ISO 105-X12

Fastness results are grey scale ratings of effect on shade and staining of multifibre adjacent:

E	effect on shade	CA	stain on acetate
CO	stain on cotton	PA	stain on polyamide
PES	stain on polyester	PAN	stain on acrylic
WO	stain on wool		

Dyeing in fibre blends

Equal parts of polyester and the relevant fibre are dyed together at 1/1 SD on the polyester. (Note: depths used for navies and blacks are as specified above in Rate of Dyeing)

Key to the figures quoted:

- 1 Shade on other fibre much weaker than on polyester
- 2 Shade on other fibre weaker than on polyester
- 3 Shade on other fibre the same as on polyester
- 4 Shade on other fibre stronger than on polyester
- 5 Not recommended

Staining in fibre blends

Equal parts of polyester and the relevant fibre are dyed together at 1/1 SD (Note: depths used for navies and blacks are as specified above in Rate of Dyeing) on the weight of polyester using the normal process for such blends. The staining is measured both before and after the clearing process recommended for such blends, using the grey scale for the evaluation of staining (ISO 105-A03).

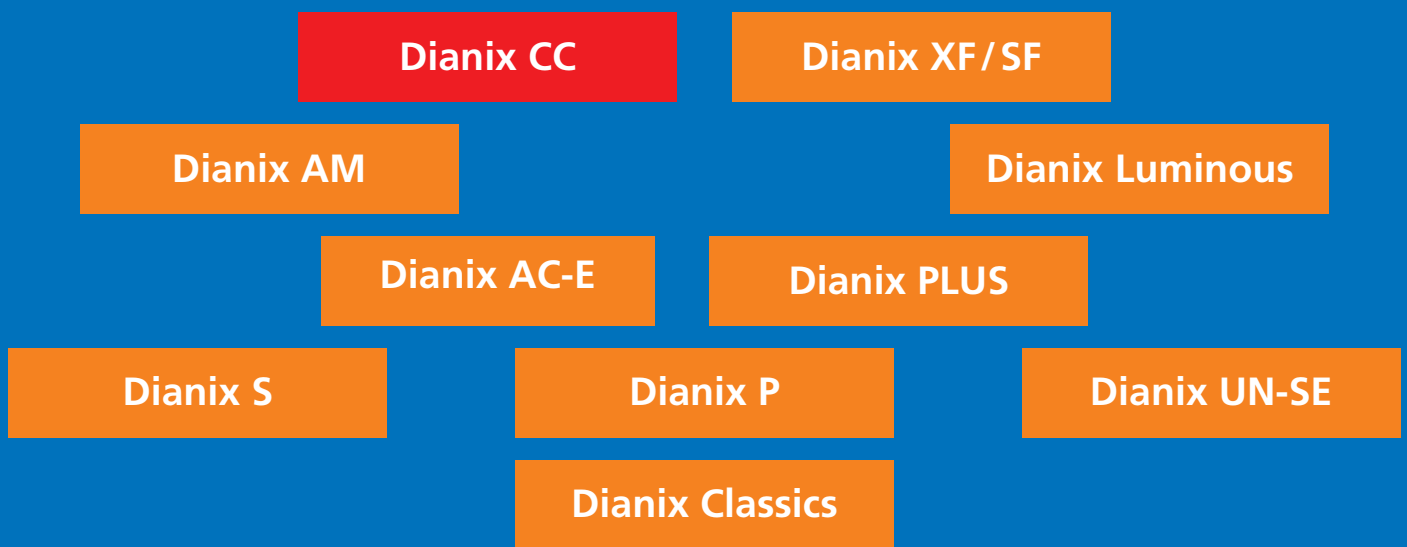




Dianix Yellow CC	0.03%	0.10%	0.30%	0.60%
Dianix Yellow Brown CC	0.06%	0.23%	0.70%	1.40%
Dianix Scarlet CC	0.07%	0.28%	0.83%	1.66%
Dianix Red CC	0.06%	0.22%	0.66%	1.32%
Dianix Rubine CC	0.05%	0.19%	0.56%	1.12%
Dianix Violet CC	0.03%	0.13%	0.40%	0.80%
Dianix Blue CC	0.04%	0.17%	0.50%	1.00%
Dianix Royal Blue CC	0.04%	0.17%	0.50%	1.00%
Dianix Turquoise CC	0.11%	0.44%	1.33%	2.66%
Dianix Green CC	0.11%	0.43%	1.30%	2.60%
Dianix Navy CC		0.37%	0.55%	1.10%
Dianix Black CC-R			1.30%	2.60%
Dianix Black CC-3R			1.10%	2.20%
Dianix Black CC-G			1.30%	2.60%
Dianix Black CC-3G			1.30%	2.60%

Team up with DyStar for success

Meet the new Dianix team



Following the merger of the textile dyes business of DyStar and BASF, DyStar has integrated its market-leading ranges of disperse dyes under the Dianix brand name. Product sub-groups have been designed to meet customer needs for

- Controlled Coloration – reliable dyeing processes
- Colour Confidence – colour fastness performance to meet leading retailer specifications

The new Dianix range covers the full spectrum: from top-quality, economical standard dyes to innovative, problem-solving dyes developed by our own R&D centres specifically to meet today’s demanding performance specifications. You can rely on the benefits offered by DyStar.

Make use of the benefits we offer

- the world’s most extensive range of dyes
- modern and innovative problem-solving products
- the combined expertise of leading dye producers (BASF, Bayer, Hoechst, Mitsubishi and Mitsui)
- experienced, technically-competent representatives in all key markets
- highest standards of product quality, safety and environmental protection; all Dianix dyes meet the requirements of leading ecological performance specifications such as Öko-Text Standard 100.

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 Vertrieb 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 Centers**
● **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.: ++27-31-7 10 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
Yilanli Ayazma Sokak 14-16
34020 Topkapi/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