

Dianix[®] Luminous/Brilliant

Fluorescent and brilliant dyes for fashion shades
and high-visibility clothing



Dianix Luminous/Brilliant



Color Confidence through Dianix Luminous/Brilliant dyes

Dianix Luminous/Brilliant dyes are a range of fluorescent and support brilliant dyes for fashion shades and for high-visibility clothing offering:

- a wide range of fluorescent and brilliant shades on polyester and its blends
- conformance with EN 471 and other specifications for high-visibility work clothing
- conformance with EN 1150 specification for high-visibility leisure and sports clothing
- good all-round colour fastness

Dianix Luminous/Brilliant



Wide range of fluorescent shades for high-visibility clothing

- meet EN 471 and other workwear specifications in all 3 shades
- meet EN 1150 sports/leisurewear specification in all 8 shades

High-visibility clothing standards

- European Standard EN 471 has for many years been the leading performance specification for high-visibility workwear fabrics
- European Standard EN 1150 has more recently been introduced as a performance specification for high-visibility clothing for non-professional use in sports and leisure clothing
- Dianix Luminous dyes meet both the EN471 and EN1150 specifications and also other workwear specifications. The performance of Dianix Luminous dyes on a typical 100% polyester workwear fabric is illustrated; performance should be checked on individual fabrics to ensure conformance

Chromaticity value measurements

In the following illustrations, the chromaticity values are represented in accordance with the procedures defined in CIE publication No. 15.2 for polychromatic illumination D65, 45/0° geometry and 2° standard observer

Spectrophotometer: Minolta CM-508c

Measurement: 1 and 3 layers of fabric on a black underlay
with a reflectance < 0.04

Chromaticity: Average of 6 measurements
(3 at 0° and 3 at 90° angle)

**Typical recipe
exhaust dyed on PES**

**Typical recipe
continuously dyed on
85/15 PES/cotton**

EN 471 EN 1150

Fluorescent Yellow

0.48% Dianix Luminous Yellow 10G
0.003% Dianix Luminous Red G
1.0% Levegal DLP (Bayer)
0.5–1.0 g/l Trilon TA (BASF)
pH 4.0–5.0
45 minutes at 130 °C

10.0 g/l Dianix Luminous Yellow 10G
0.06 g/l Dianix Luminous Red G
10.0 g/l Primasol AMK (BASF)
50% pickup
pH 6.0
Pad-Dry-Thermosol 60 seconds at 220 °C
Oxidative cleared

✓

✓

Fluorescent Yellow-Orange

0.90% Dianix Luminous Yellow 10G
0.04% Dianix Luminous Red G
1.0% Levegal DLP
0.5–1.0 g/l Trilon TA
pH 5.0–6.0
60 minutes at 135 °C

10.0 g/l Dianix Luminous Yellow 10G
0.70 g/l Dianix Luminous Red G
10.0 g/l Primasol AMK
50% pickup
pH 6.0
Pad-Dry-Thermosol 60 seconds at 220 °C
Oxidative cleared

X

✓

Fluorescent Orange

0.80% Dianix Luminous Yellow 10G
0.16% Dianix Luminous Red G
1.0% Levegal DLP
0.5–1.0 g/l Trilon TA
pH 5.0–6.0
60 minutes at 135 °C

10.0 g/l Dianix Luminous Yellow 10G
2.00 g/l Dianix Luminous Red G
10.0 g/l Primasol AMK
50% pickup
pH 6.0
Pad-Dry-Thermosol 60 seconds at 220 °C
Oxidative cleared

X

✓

Fluorescent Orange-Red

0.70% Dianix Luminous Yellow 10G
1.20% Dianix Luminous Red G
1.0% Levegal DLP
0.5–1.0 g/l Trilon TA
pH 5.0–6.0
60 minutes at 135 °C

10.0 g/l Dianix Luminous Yellow 10G
12.0 g/l Dianix Luminous Red G
10.0 g/l Primasol AMK
50% pickup
pH 6.0
Pad-Dry-Thermosol 60 seconds at 220 °C
Oxidative cleared

✓

✓

Fluorescent Red

0.10% Dianix Luminous Yellow 10G
3.50% Dianix Luminous Red 3B
0.70% Dianix Luminous Red B
1.0% Levegal DLP
0.5–1.0 g/l Trilon TA
pH 4.5–5.5
60 minutes at 135 °C

3.0 g/l Dianix Luminous Yellow 10G
45.0 g/l Dianix Luminous Red 3B
10.0 g/l Dianix Luminous Red B
10.0 g/l Primasol AMK
50% pickup
pH 6.0
Pad-Dry-Thermosol 60 seconds at 220 °C
Oxidative cleared

✓

✓

Fluorescent Pink

0.70% Dianix Luminous Red 3B
1.0% Levegal DLP
0.5–1.0 g/l Trilon TA
pH 4.5–5.5
60 minutes at 135 °C

12.0 g/l Dianix Luminous Red 3B
10.0 g/l Primasol AMK
50% pickup
pH 6.0
Pad-Dry-Thermosol 60 seconds at 220 °C
Oxidative cleared

X

✓

Fluorescent Green

0.14% Dianix Luminous Yellow 10G
0.23% Dianix Turquoise XF
1.0% Levegal DLP
0.5–1.0 g/l Trilon TA
pH 4.0–4.5
60 minutes at 135 °C

1.35 g/l Dianix Luminous Yellow 10G
4.00 g/l Dianix Turquoise XF
10.0 g/l Primasol AMK
50% pickup
pH 4.0–4.5
Pad-Dry-Thermosol 60 seconds at 220 °C
Oxidative cleared

X

✓

Fluorescent Yellow-Green

0.80% Dianix Luminous Yellow 10G
0.14% Dianix Turquoise XF
1.0% Levegal DLP
0.5–1.0 g/l Trilon TA
pH 4.0–4.5
60 minutes at 135 °C

6.5 g/l Dianix Luminous Yellow 10G
2.2 g/l Dianix Turquoise XF
10.0 g/l Primasol AMK
50% pickup
pH 4.0–4.5
Pad-Dry-Thermosol 60 seconds at 220 °C
Oxidative cleared

X

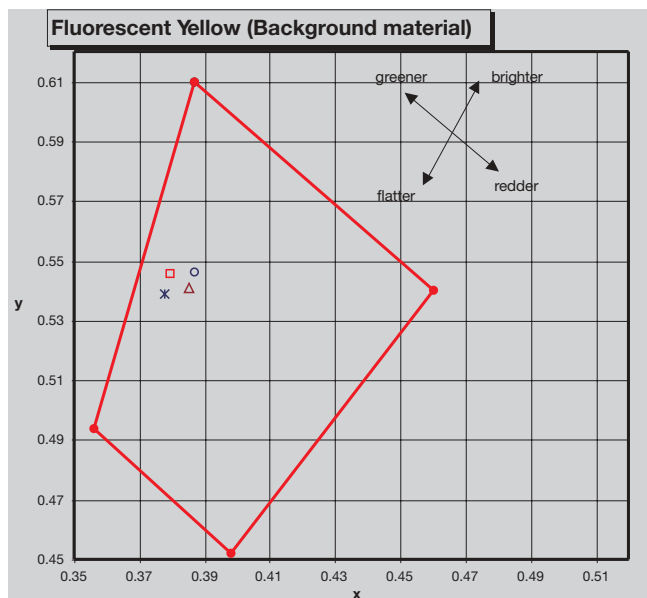
✓

Dianix Luminous/Brilliant

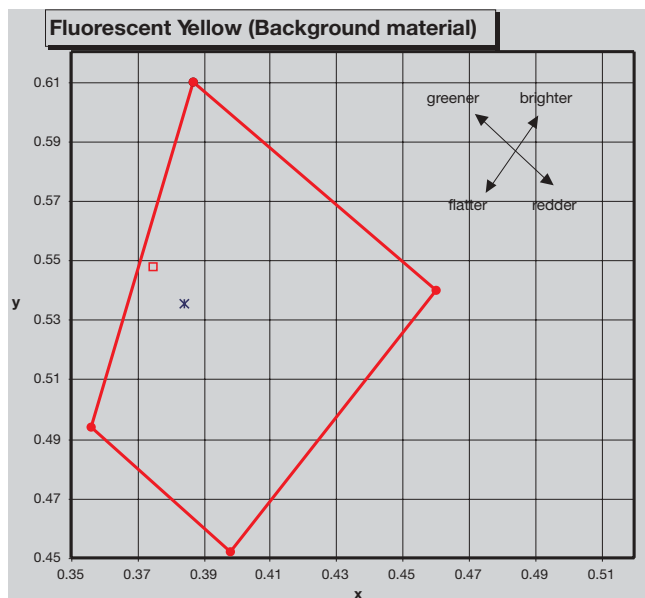
Wide range of fluorescent shades for high-visibility clothing

► Fluorescent Yellow

EN 1150

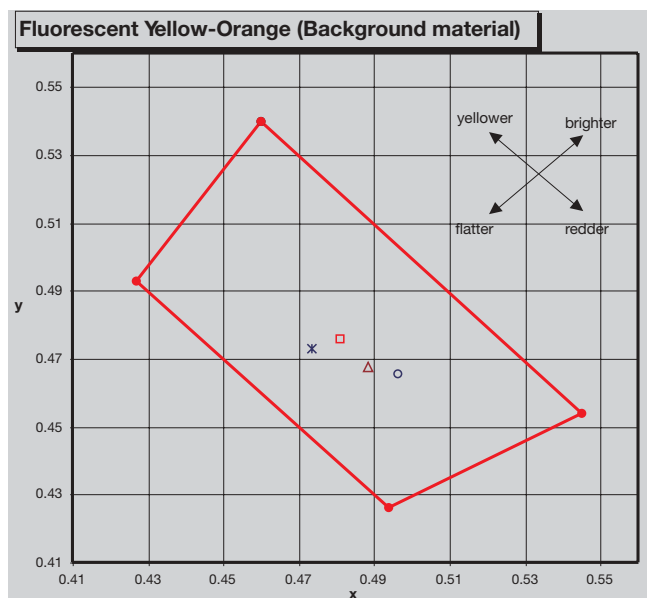


EN 471



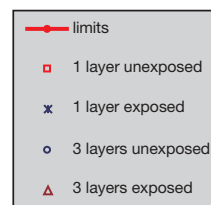
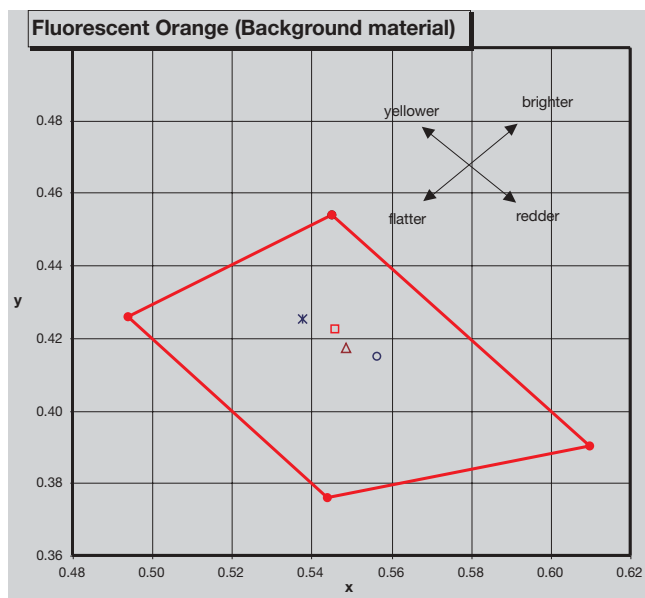
► Fluorescent Yellow-Orange

EN 1150



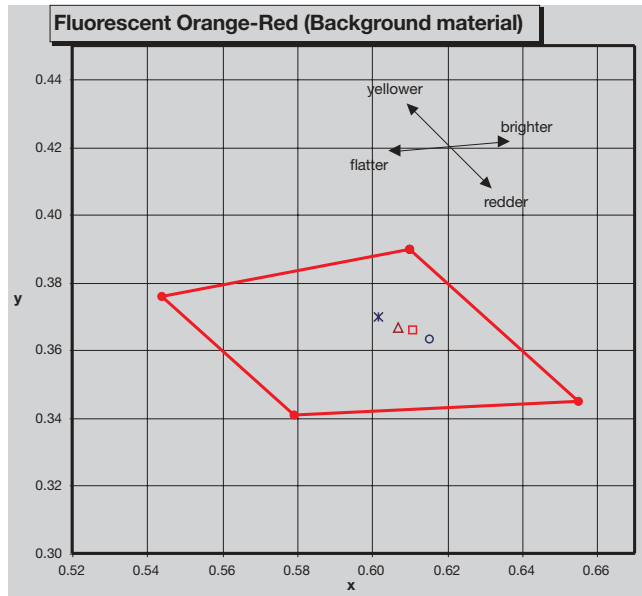
► Fluorescent Orange

EN 1150

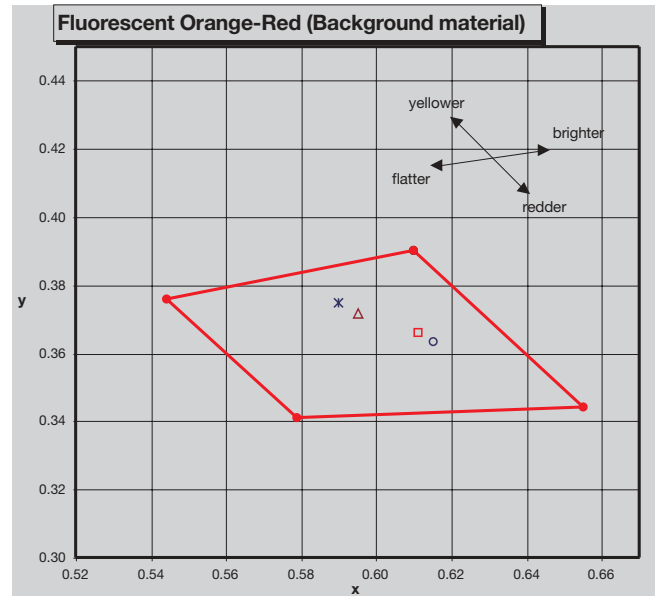


► Fluorescent Orange-Red

EN 1150

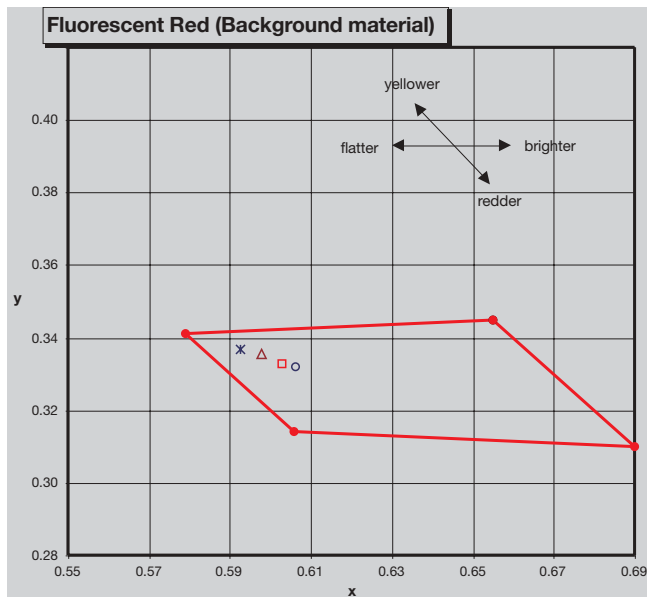


EN 471

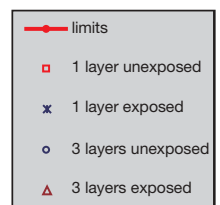
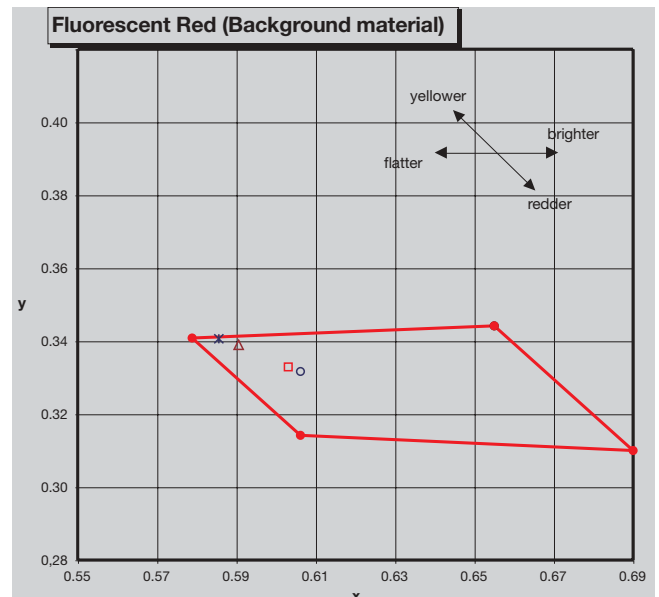


► Fluorescent Red

EN 1150



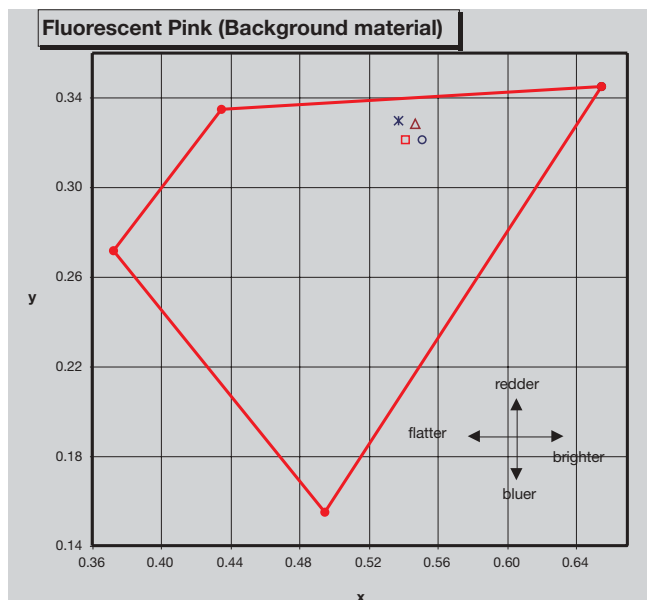
EN 471



Dianix Luminous/Brilliant

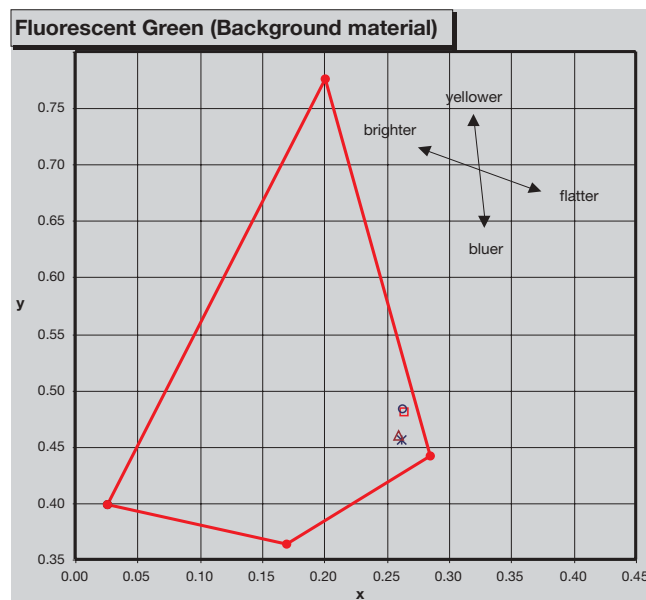
► Fluorescent Pink

EN 1150



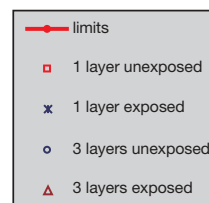
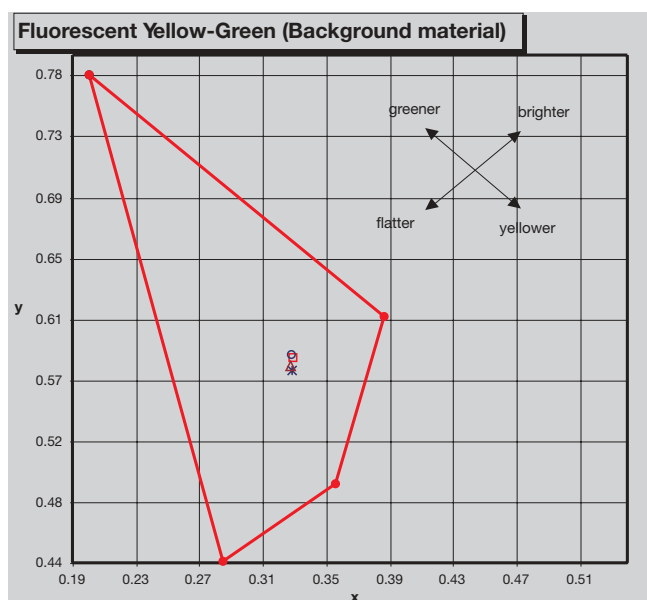
Fluorescent Green

EN 1150



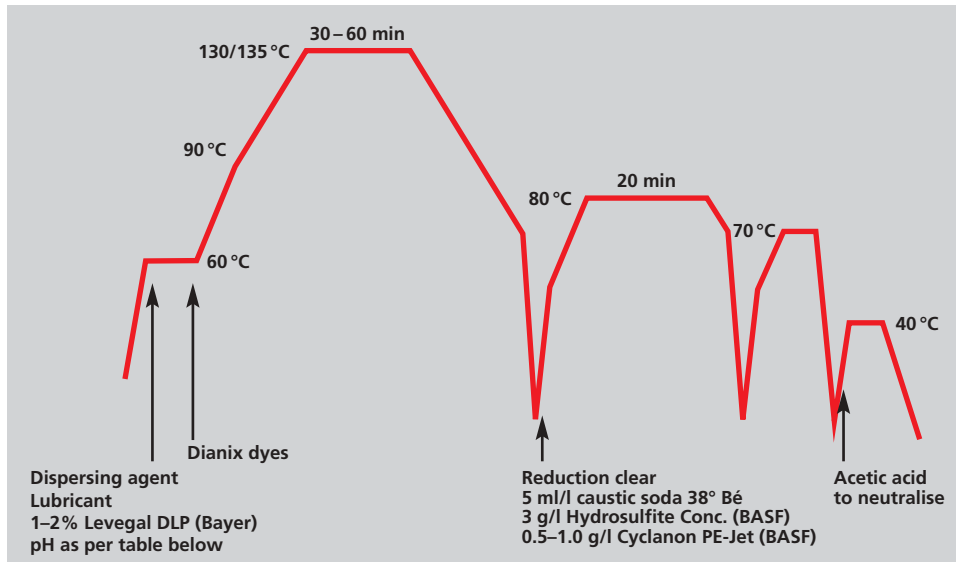
► Fluorescent Yellow-Green

EN 1150



Exhaust dyeing processes for 100% polyester

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



Dispersing agent:
 1.0–2.0 g/l Setamol BL (BASF) or
 0.5–1.0 g/l Avolan IS (Bayer)

Lubricant:
 1.0–2.0 g/l Primasol Jet (BASF) or
 1.0–2.0 g/l Persofter L (Bayer)

Trilon TA
 (if required)

Dye	pH range	Dyebath auxiliaries	Temperature	Typical dyeing time (min)
Luminous Yellow 10G*	4.0–6.0	Dispersing agent Lubricant 1–2% Levegal DLP (Bayer) 0.5–1% Trilon TA (BASF) (if required) acetic acid/sodium acetate	130 °C	30–60
Luminous Red G*	5.0–6.0		135 °C	
Luminous Red B*	4.0–6.0		130 °C	
Luminous Red 3B	4.5–5.5		135 °C	
Luminous Pink 5B*	4.0–6.0		130 °C	
Brilliant Orange G*	4.0–6.0		130 °C	
Brilliant Violet R	4.0–6.0		130 °C	
Brilliant Violet B*	4.0–6.0		130 °C	
Brilliant Blue R*	4.0–6.0		130 °C	
Cyanine B	4.0–4.5		135 °C	
Turquoise XF	4.0–4.5	135 °C		

* For optimum level dyeing performance in beam dyeing and dyeing of high twist yarns/hard wound packages, these dyes are recommended

Dianix Luminous/Brilliant

Clearing process after dyeing

Reduction clearing

5 ml/l caustic soda 38° Bé
3 g/l Hydrosulfite Conc. (BASF)
0.5–1.0 g/l Cyclanon PE-Jet (BASF)
20 minutes at 80 °C

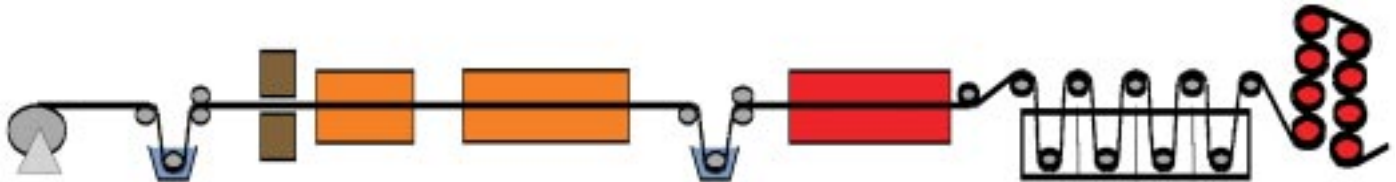
Wash fastness (after heat setting 30 seconds at 180 °C)

C06/B2S (50 °C) wash test



Continuous dyeing process for polyester/cellulose

Pad-Dry-Thermofix-Pad-Steam



Typical dye pad recipe

... g/l Dianix Luminous/Brilliant dye
 10 g/l Primasol AMK (BASF) or
 Levalin MIP (Bayer)
 (migration inhibitor)
 2–4 g/l Primasol NF (BASF) or
 Erkantol AS (Bayer)
 (wetting agent)
 pH 5–6 with acetic acid

Typical process

Pad (50% pick-up)
 Dry 2 minutes at 100 °C
 Thermosol 60 seconds at 220 °C

Clearing process after dyeing

Reduction clearing

60 ml/l caustic soda 50%
 30 g/l Hydrosulfite Conc. (BASF)
 1.0 g/l Setamol WS (BASF)
 2.0 g/l Dekol SN (BASF)

70% pick-up
 90 seconds at 102 °C with saturated steam
 Soap with 1.0 g/l Kieralon B high conc. (BASF)
 2 minutes at 85 °C
 Hot and cold rinsing

Oxidative clearing

(used on polyester/cotton only)

40 ml/l caustic soda 50%
 42 ml/l hydrogen peroxide 50%
 6.0 g/l Prestogen D (BASF)
 2.0 g/l Kieralon CD (BASF)

If necessary the cotton part is overdyed with Indanthren or Levafix/Remazol dyes using the recommended dyeing process.

Dianix Luminous/Brilliant



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

PCB/Dioxin

- comply with German “Chemikalienverbotsverordnung”

Colour in effluent

- very high exhaustion levels minimise colour in effluent

COD in effluent

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

Oeko-Tex Standard 100

- all dyes are fully compliant with Oeko-Tex Standard 100



Dianix Luminous/Brilliant

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, without levelling agent.

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

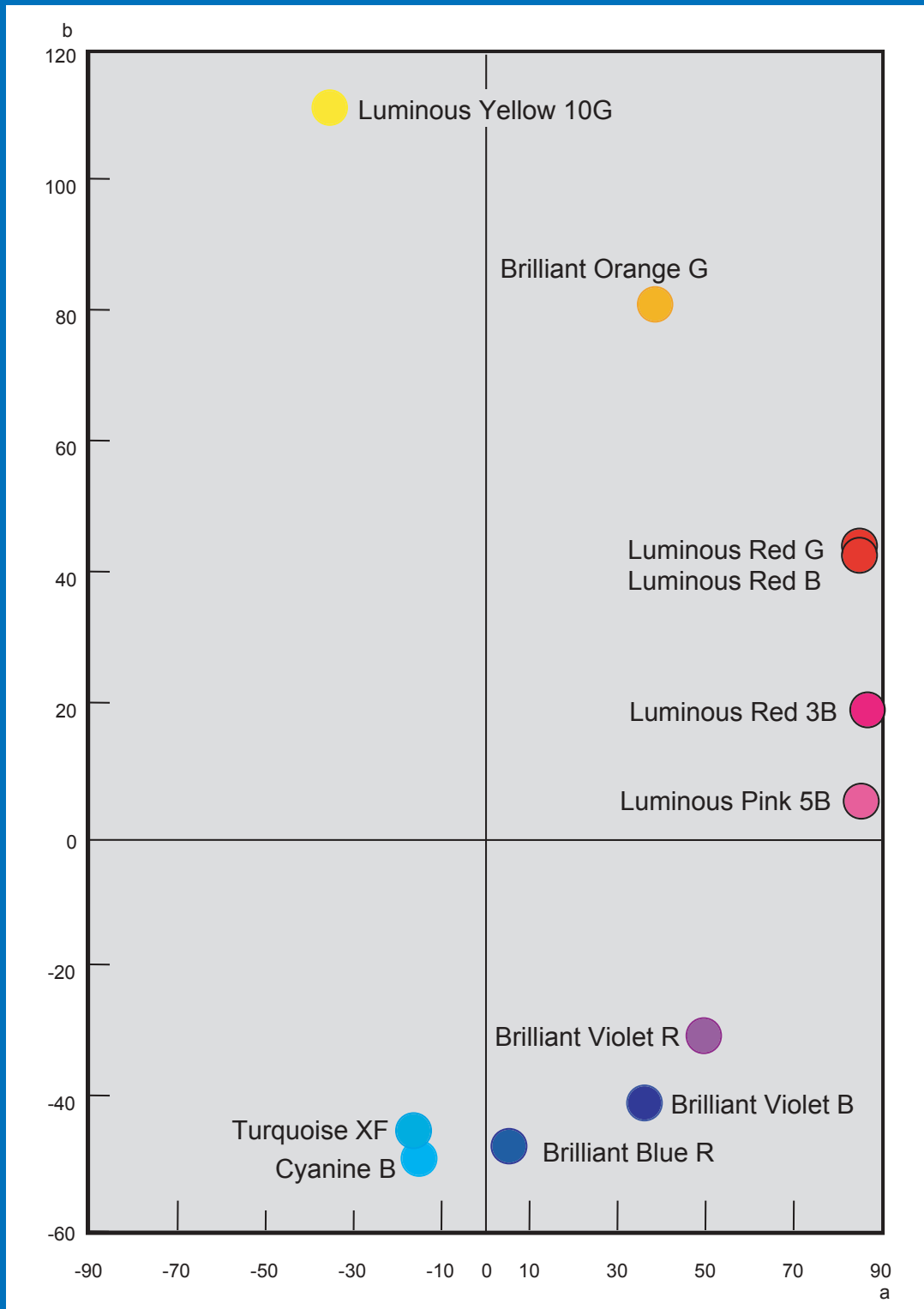
Light fastness was tested at the concentrations indicated.
Other fastness tests were carried out on 1/1 SD dyeings.

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		

Dianix Luminous/Brilliant product information



Dianix Luminous Yellow 10G

Suitability/Eignung

Depth of shade Farbtiefe	HT		Carrier	Printing/Druck		Discharge Printing/Ätzdruck			
	Yarn/Garn	Piece/Stück		HTS/HTD	PS/DD	Ground/Fond		Illumination	
						Alkali	SnCl ₂	Alkali	SnCl ₂
Pale/hell	++	++	+	+	++	-	-	-	++
Medium/mittel	++	++	+	+	++	-	-	-	++
Dark/dunkel	++	++	-	+	++	-	-	-	++

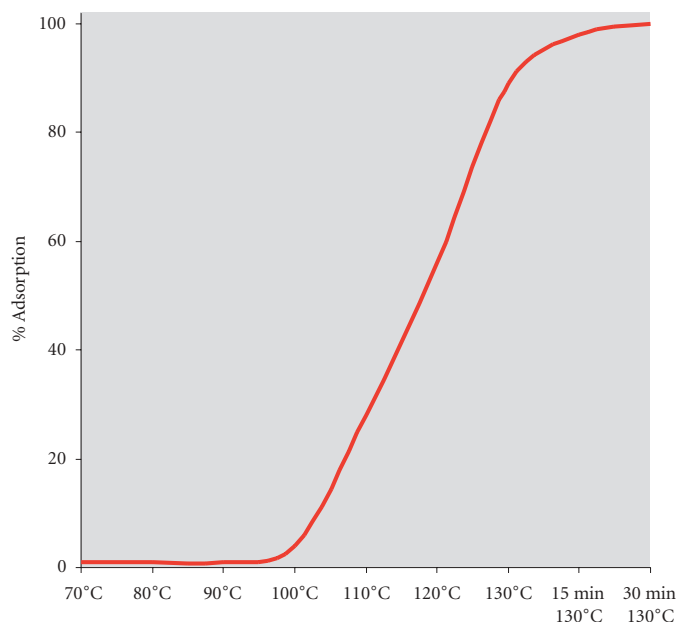
Depth of shade Farbtiefe	HT (PES/CO)		Thermosol (PES/CO)	PES/WO		Acetate	Triacetate	Polyamide
	Yarn/Garn	Piece/Stück		Yarn/Garn	Piece/Stück			
Pale/hell	++	++	++	-	Suitable/ geeignet 106–120 °C	++	++	+
Medium/mittel	++	++	++			++	++	+
Dark/dunkel	++	++	++			++	++	+
Opt. Temp/Temp.			210 °C					

Dye Characteristics/Produktmerkmale

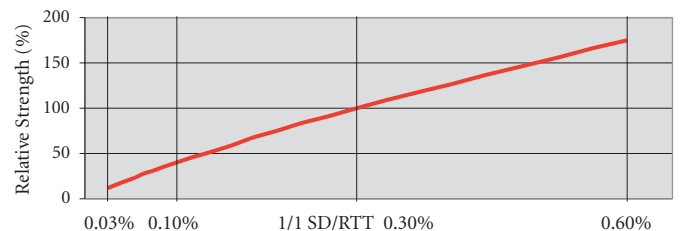
Level uptake/Egalfärbevermögen	3	
Barré coverage/ Materialausgleich	very good/ sehr gut	
Sensitivity to metal ions Metallempfindlichkeit	Cu	2
	Fe	4
pH stability/pH-Stabilität	4.0–6.0	

Artificial light/Kunstlicht	
Tungsten	TL84
redder, duller/ röter, stumpfer	redder/ röter

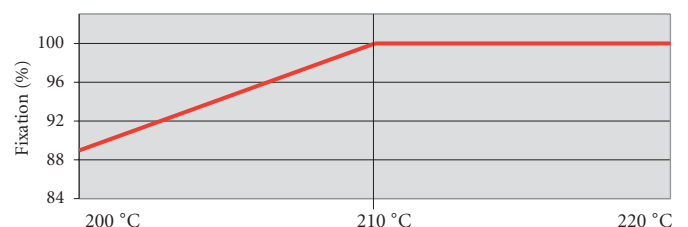
Rate of Dyeing Curve/Ziehkurve



Build-up/Aufbau



Temperature Dependency (Thermofixation) Temperatur-Abhängigkeit (Thermosol)



Dianix Luminous Yellow 10G

Fastness Properties on Polyester/Echtheiten auf Polyester

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		0.03%	0.10%	1/1 SD/RTT 0.30%	0.60%
Light Fastness	Xenon	4	5	5-6	6
Lichtechtheit	Carbon Arc	2	2-3	3	3-4
Sublimation Fastness/ Sublimationsechtheit	180 °C	5	5	4-5	3-4

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		E	CA	CO	PA	PES	PAN	WO
Water, severe	Wasser, schwer	5	5	5	5	5	5	5
Washing C06/B2S	Wäsche, C06/B2S	4-5	4-5	4-5	4	4-5	4-5	4-5
Washing AATCC IIA	Wäsche, AATCC IIA	5	4-5	5	4	5	5	5
Perspiration, alkaline	Schweiß, alkalisch	5	5	5	5	5	5	5
Perspiration, acid	Schweiß, sauer	5	5	5	5	5	5	5
Rubbing, dry	Reibechtheit, trocken			5				
Rubbing, wet	Reibechtheit, naß			5				

Dianix Luminous Red G

Suitability/Eignung

Depth of shade Farbtiefe	HT		Carrier	Printing/Druck		Discharge Printing/Ätzdruck			
	Yarn/Garn	Piece/Stück		HTS/HTD	PS/DD	Ground/Fond		Illumination	
						Alkali	SnCl ₂	Alkali	SnCl ₂
Pale/hell	++	++	-	++	++	-	-	-	-
Medium/mittel	++	++	-	++	++	-	-	-	-
Dark/dunkel	++	++	-	++	++	-	-	-	-

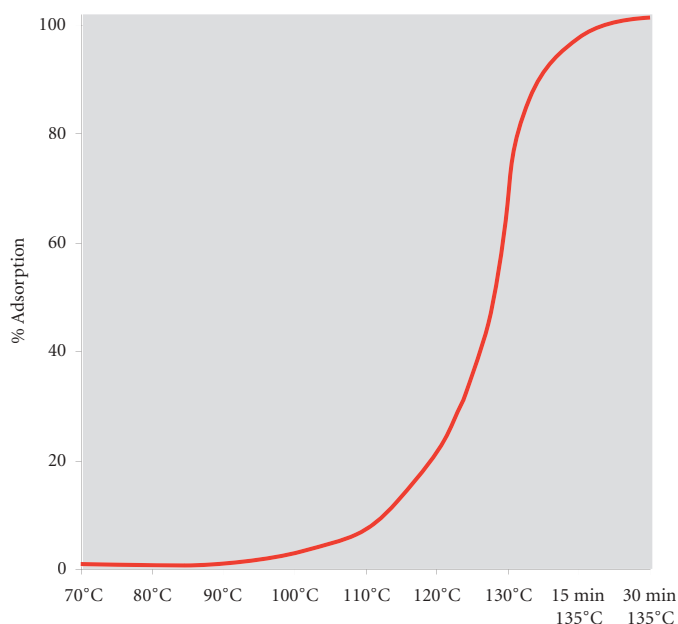
Depth of shade Farbtiefe	HT (PES/CO)		Thermosol (PES/CO)	PES/WO		Acetate	Triacetate	Polyamide
	Yarn/Garn	Piece/Stück		Yarn/Garn	Piece/Stück			
Pale/hell	++	++	++	-	-	-	-	-
Medium/mittel	++	++	++			-	-	-
Dark/dunkel	++	++	++			-	-	-
Opt. Temp/Temp.			220 °C					

Dye Characteristics/Produktmerkmale

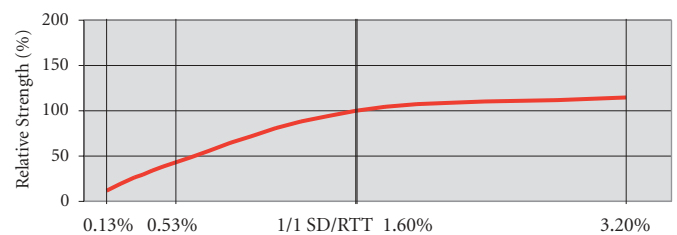
Level uptake/Egalfärbevermögen		2
Barré coverage/Materialausgleich		good/gut
Sensitivity to metal ions Metallempfindlichkeit	Cu Fe	3 4
pH stability/pH-Stabilität		5.0–6.0

Artificial light/Kunstlicht	
Tungsten	TL84
yellow/gelber	yellow/gelber

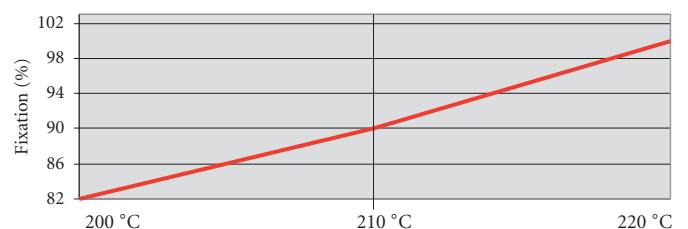
Rate of Dyeing Curve/Ziehkurve



Build-up/Aufbau



Temperature Dependency (Thermofixation) Temperatur-Abhängigkeit (Thermosol)



Dianix Luminous Red G

Fastness Properties on Polyester/Echtheiten auf Polyester

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		0.13%	0.53%	1/1 SD/RTT	
				1.60%	3.20%
Light Fastness	Xenon	5	4-5	4-5	4-5
Lichtechtheit	Carbon Arc	5	4	3-4	3-4
Sublimation Fastness/ Sublimationsechtheit	180 °C	5	5	4-5	4

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		E	CA	CO	PA	PES	PAN	WO
Water, severe	Wasser, schwer	5	4-5	5	4-5	5	5	5
Washing C06/B2S	Wäsche, C06/B2S	4-5	4-5	4-5	4	4-5	4-5	4-5
Washing AATCC IIA	Wäsche, AATCC IIA	5	5	5	2-3	5	5	5
Perspiration, alkaline	Schweiß, alkalisch	5	4-5	5	4	4-5	5	5
Perspiration, acid	Schweiß, sauer	5	4-5	5	4	5	5	5
Rubbing, dry	Reibechtheit, trocken			5				
Rubbing, wet	Reibechtheit, naß			5				

Dianix Luminous Red B

Suitability/Eignung

Depth of shade Farbtiefe	HT		Carrier	Printing/Druck		Discharge Printing/Ätzdruck			
	Yarn/Garn	Piece/Stück		HTS/HTD	PS/DD	Ground/Fond		Illumination	
						Alkali	SnCl ₂	Alkali	SnCl ₂
Pale/hell	++	++	+	+	+	-	-	-	-
Medium/mittel	++	++	+	+	+	-	-	-	-
Dark/dunkel	++	++	-	+	+	-	-	-	-

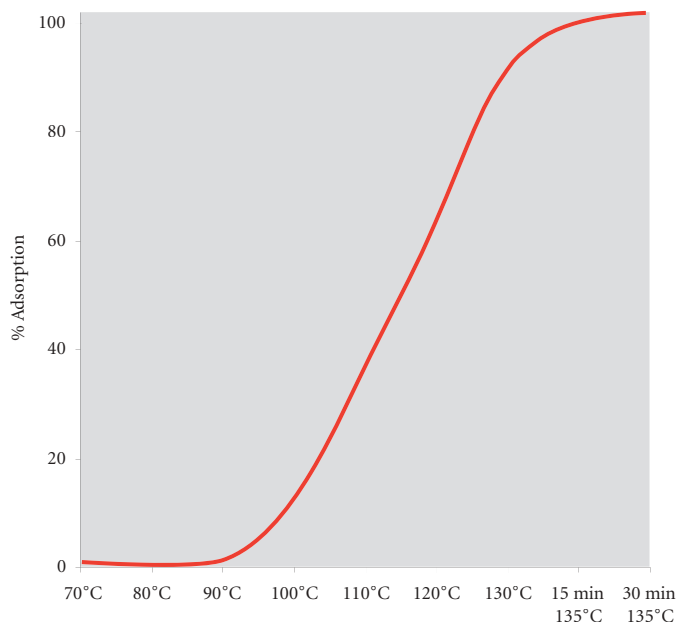
Depth of shade Farbtiefe	HT (PES/CO)		Thermosol (PES/CO)	PES/WO		Acetate	Triacetate	Polyamide
	Yarn/Garn	Piece/Stück		Yarn/Garn	Piece/Stück			
Pale/hell	++	++	++	-	-	+	+	-
Medium/mittel	++	++	++			+	+	-
Dark/dunkel	++	++	++			+	+	-
Opt. Temp/Temp.			220 °C					

Dye Characteristics/Produktmerkmale

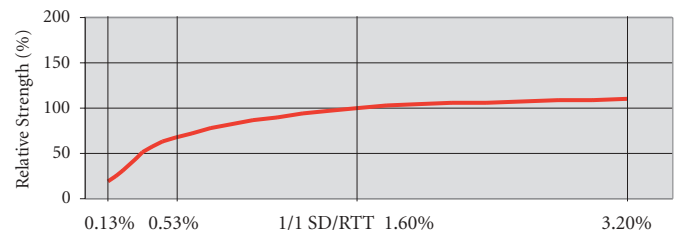
Level uptake/Egalfärbevermögen			3
Barré coverage/ Materialausgleich			very good/ sehr gut
Sensitivity to metal ions Metallempfindlichkeit	Cu	5	
	Fe	5	
pH stability/pH-Stabilität			3.0–6.0

Artificial light/Kunstlicht	
Tungsten	TL84
yellowish/ gelber	unchanged/ unverändert

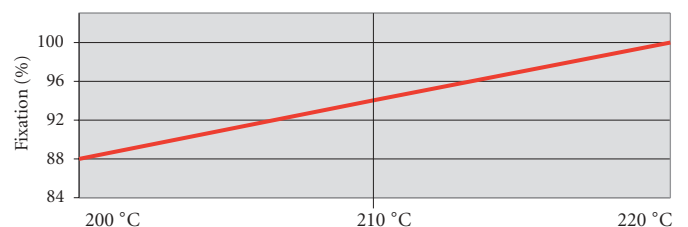
Rate of Dyeing Curve/Ziehkurve



Build-up/Aufbau



Temperature Dependency (Thermofixation) Temperatur-Abhängigkeit (Thermosol)



Dianix Luminous Red B

Fastness Properties on Polyester/Echtheiten auf Polyester

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		0.13%	0.53%	1/1 SD/RTT 1.60%	3.20%
Light Fastness	Xenon	4	4	3-4	3-4
Lichtechtheit	Carbon Arc	4	3	2	2
Sublimation Fastness/ Sublimationsechtheit	180 °C	5	5	5	4

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		E	CA	CO	PA	PES	PAN	WO
Water, severe	Wasser, schwer	5	5	5	5	5	5	5
Washing C06/B2S	Wäsche, C06/B2S	4-5	4-5	4-5	4-5	4-5	4-5	4-5
Washing AATCC IIA	Wäsche, AATCC IIA	5	4-5	5	4	5	5	5
Perspiration, alkaline	Schweiß, alkalisch	5	5	5	5	5	5	5
Perspiration, acid	Schweiß, sauer	5	5	5	5	5	5	5
Rubbing, dry	Reibechtheit, trocken			5				
Rubbing, wet	Reibechtheit, naß			5				

Dianix Luminous Red 3B

Suitability/Eignung

Depth of shade Farbtiefe	HT		Carrier	Printing/Druck		Discharge Printing/Ätzdruck			
	Yarn/Garn	Piece/Stück		HTS/HTD	PS/DD	Ground/Fond		Illumination	
						Alkali	SnCl ₂	Alkali	SnCl ₂
Pale/hell	+	++	-	++	++	-	-	-	-
Medium/mittel	+	++	-	++	++	-	-	-	-
Dark/dunkel	+	++	-	++	++	-	-	-	-

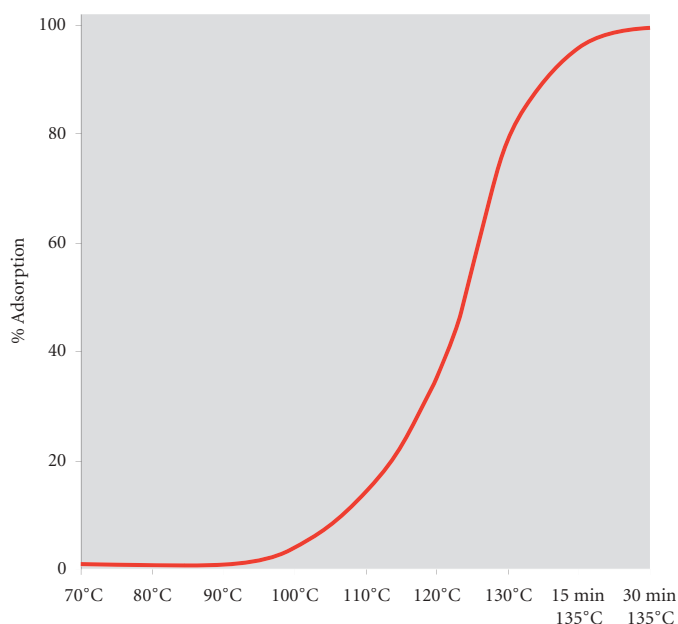
Depth of shade Farbtiefe	HT (PES/CO)		Thermosol (PES/CO)	PES/WO		Acetate	Triacetate	Polyamide
	Yarn/Garn	Piece/Stück		Yarn/Garn	Piece/Stück			
Pale/hell	+	++	++	-	-	-	-	-
Medium/mittel	+	++	++			-	-	-
Dark/dunkel	+	++	++			-	-	-
Opt. Temp/Temp.			220 °C					

Dye Characteristics/Produktmerkmale

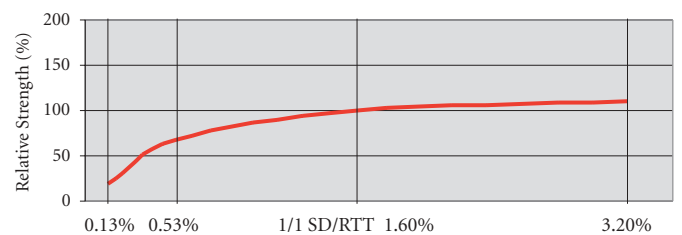
Level uptake/Egalfärbevermögen		2
Barré coverage/Materialausgleich		good/gut
Sensitivity to metal ions Metallempfindlichkeit	Cu Fe	5 5
pH stability/pH-Stabilität		4.5–5.5

Artificial light/Kunstlicht	
Tungsten	TL84
yellow/gelber	yellow/gelber

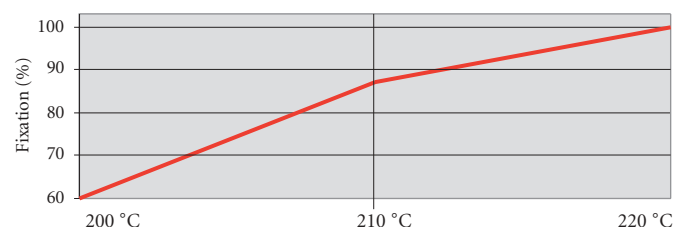
Rate of Dyeing Curve/Ziehkurve



Build-up/Aufbau



Temperature Dependency (Thermofixation) Temperatur-Abhängigkeit (Thermosol)



Dianix Luminous Red 3B

Fastness Properties on Polyester/Echtheiten auf Polyester

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		0.13%	0.53%	1/1 SD/RTT 1.60%	3.20%
Light Fastness	Xenon	5	5	5	4-5
Lichtechtheit	Carbon Arc	5	4-5	5	5
Sublimation Fastness/ Sublimationsechtheit	180 °C	5	5	5	4-5

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		E	CA	CO	PA	PES	PAN	WO
Water, severe	Wasser, schwer	5	4-5	5	4-5	5	5	5
Washing C06/B2S	Wäsche, C06/B2S	4-5	5	4-5	4-5	4-5	4-5	4-5
Washing AATCC IIA	Wäsche, AATCC IIA	5	5	5	3	5	5	5
Perspiration, alkaline	Schweiß, alkalisch	5	4-5	5	4-5	5	5	5
Perspiration, acid	Schweiß, sauer	5	4-5	5	4-5	5	5	5
Rubbing, dry	Reibechtheit, trocken			5				
Rubbing, wet	Reibechtheit, naß			5				

Dianix Luminous Pink 5B

Suitability/Eignung

Depth of shade Farbtiefe	HT		Carrier	Printing/Druck		Discharge Printing/Ätzdruck			
	Yarn/Garn	Piece/Stück		HTS/HTD	PS/DD	Ground/Fond		Illumination	
						Alkali	SnCl ₂	Alkali	SnCl ₂
Pale/hell	+	++	-	-	+	-	-	-	-
Medium/mittel	+	++	-	-	+	-	-	-	-
Dark/dunkel	+	+	-	-	+	-	-	-	-

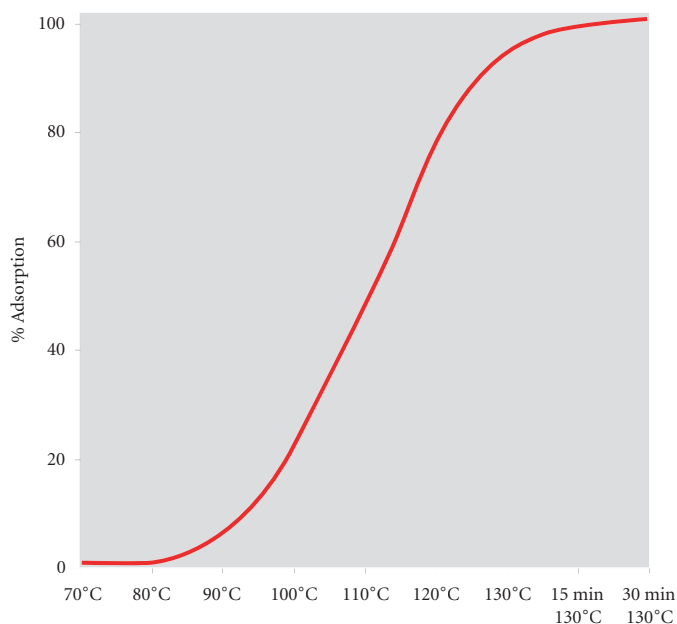
Depth of shade Farbtiefe	HT (PES/CO)		Thermosol (PES/CO)	PES/WO		Acetate	Triacetate	Polyamide
	Yarn/Garn	Piece/Stück		Yarn/Garn	Piece/Stück			
Pale/hell	+	++	++	Suitable/ geeignet 106–120 °C	Suitable/ geeignet 106–120 °C	-	-	-
Medium/mittel	+	++	++			-	-	-
Dark/dunkel	+	+	++			-	-	-
Opt. Temp/Temp.			200 °C					

Dye Characteristics/Produktmerkmale

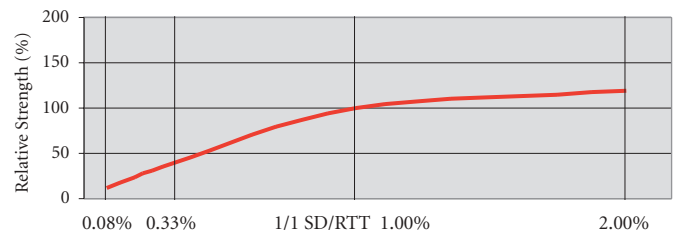
Level uptake/Egalfärbevermögen	2	
Barré coverage/ Materialausgleich	excellent/ ausgezeichnet	
Sensitivity to metal ions Metallempfindlichkeit	Cu	5
	Fe	5
pH stability/pH-Stabilität	3.0–8.0	

Artificial light/Kunstlicht	
Tungsten	TL84
yellowish/ gelber	yellowish/ gelber

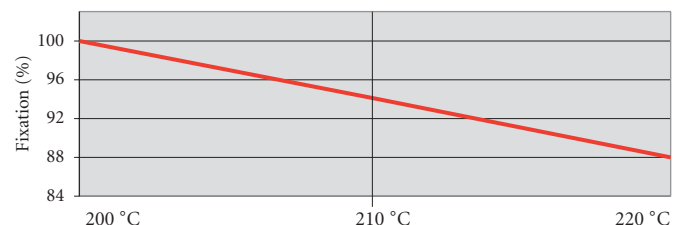
Rate of Dyeing Curve/Ziehkurve



Build-up/Aufbau



Temperature Dependency (Thermofixation) Temperatur-Abhängigkeit (Thermosol)



Dianix Luminous Pink 5B

Fastness Properties on Polyester/Echtheiten auf Polyester

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		0.08%	0.33%	1/1 SD/RTT	
				1.00%	2.00%
Light Fastness	Xenon	6-7	7	7	7
Lichtechtheit	Carbon Arc	5	5	6	6
Sublimation Fastness/ Sublimationsechtheit	180 °C	3-4	3	3	2

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		E	CA	CO	PA	PES	PAN	WO
Water, severe	Wasser, schwer	5	5	5	5	5	5	5
Washing C06/B2S	Wäsche, C06/B2S	4-5	4-5	4-5	4-5	4-5	4-5	4-5
Washing AATCC IIA	Wäsche, AATCC IIA	5	5	5	4-5	5	5	5
Perspiration, alkaline	Schweiß, alkalisch	5	5	5	5	5	5	5
Perspiration, acid	Schweiß, sauer	5	5	5	5	5	5	5
Rubbing, dry	Reibechtheit, trocken			4-5				
Rubbing, wet	Reibechtheit, naß			5				

Dianix Brilliant Orange G

Suitability/Eignung

Depth of shade Farbtiefe	HT		Carrier	Printing/Druck		Discharge Printing/Ätzdruck			
	Yarn/Garn	Piece/Stück		HTS/HTD	PS/DD	Ground/Fond		Illumination	
						Alkali	SnCl ₂	Alkali	SnCl ₂
Pale/hell	++	++	-	++	++	-	-	++	++
Medium/mittel	++	++	-	++	++	-	-	++	++
Dark/dunkel	++	++	-	++	++	-	-	++	++

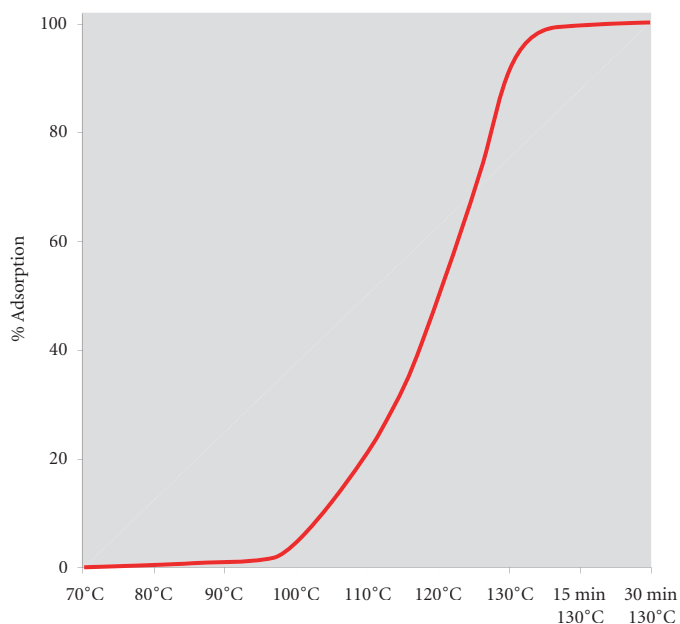
Depth of shade Farbtiefe	HT (PES/CO)		Thermosol (PES/CO)	PES/WO		Acetate	Triacetate	Polyamide
	Yarn/Garn	Piece/Stück		Yarn/Garn	Piece/Stück			
Pale/hell	++	++	++	-	-	-	-	-
Medium/mittel	++	++	++			-	-	-
Dark/dunkel	++	++	++			-	-	-
Opt. Temp/Temp.			220 °C					

Dye Characteristics/Produktmerkmale

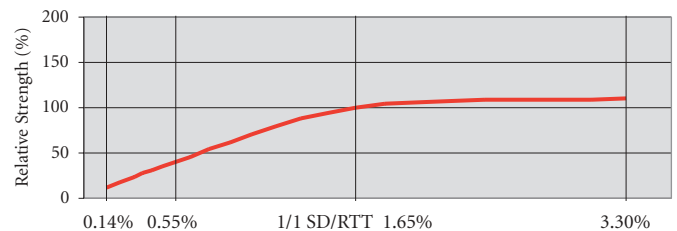
Level uptake/Egalfärbevermögen			2
Barré coverage/ Materialausgleich			moderate/ moderat
Sensitivity to metal ions Metallempfindlichkeit	Cu	3	
	Fe	5	
pH stability/pH-Stabilität			3.0–10.0

Artificial light/Kunstlicht	
Tungsten	TL84
yellowish/ gelber	yellowish/ gelber

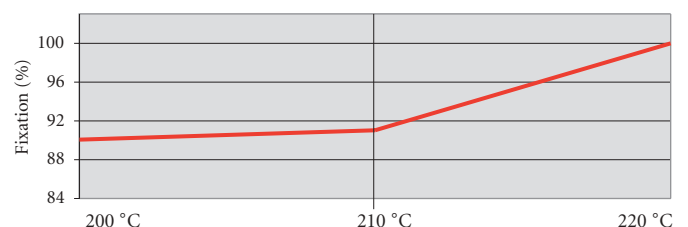
Rate of Dyeing Curve/Ziehkurve



Build-up/Aufbau



Temperature Dependency (Thermofixation) Temperatur-Abhängigkeit (Thermosol)



Dianix Brilliant Orange G

Fastness Properties on Polyester/Echtheiten auf Polyester

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		0.14%	0.55%	1/1 SD/RTT 1.65%	3.30%
Light Fastness	Xenon	6-7	7	7	7
Lichtechtheit	Carbon Arc	5	5	6	6
Sublimation Fastness/ Sublimationsechtheit	180 °C	5	5	4-5	4-5

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		E	CA	CO	PA	PES	PAN	WO
Water, severe	Wasser, schwer	5	5	5	5	5	5	5
Washing C06/B2S	Wäsche, C06/B2S	4-5	4-5	4-5	4-5	4-5	4-5	4-5
Washing AATCC IIA	Wäsche, AATCC IIA	5	4-5	5	4	5	5	5
Perspiration, alkaline	Schweiß, alkalisch	5	5	5	5	5	5	5
Perspiration, acid	Schweiß, sauer	5	5	5	5	5	5	5
Rubbing, dry	Reibechtheit, trocken			4-5				
Rubbing, wet	Reibechtheit, naß			5				

Dianix Brilliant Violet R

Suitability/Eignung

Depth of shade Farbtiefe	HT		Carrier	Printing/Druck		Discharge Printing/Ätzdruck			
	Yarn/Garn	Piece/Stück		HTS/HTD	PS/DD	Ground/Fond		Illumination	
						Alkali	SnCl ₂	Alkali	SnCl ₂
Pale/hell	++	++	-	++	++	-	-	++	++
Medium/mittel	++	++	-	+	++	-	-	++	++
Dark/dunkel	++	++	-	+	++	-	-	++	++

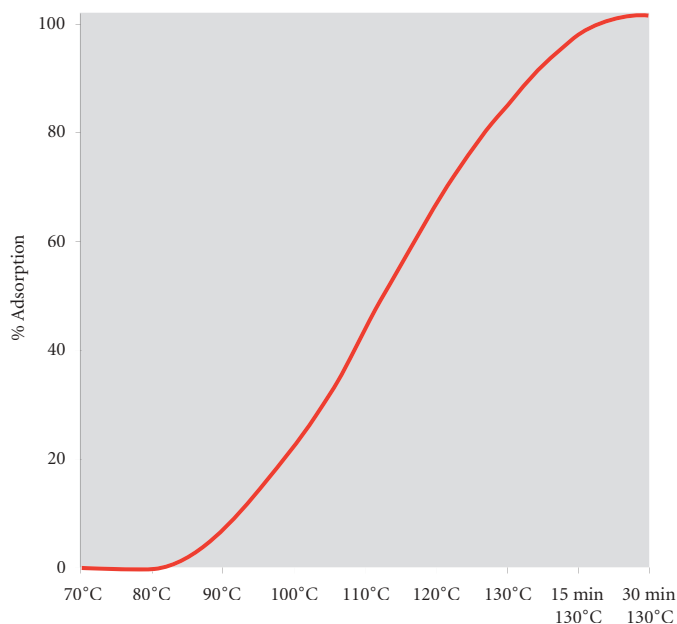
Depth of shade Farbtiefe	HT (PES/CO)		Thermosol (PES/CO)	PES/WO		Acetate	Triacetate	Polyamide
	Yarn/Garn	Piece/Stück		Yarn/Garn	Piece/Stück			
Pale/hell	++	++	++	Suitable/ geeignet 106–120 °C	Suitable/ geeignet 106–120 °C	-	+	+
Medium/mittel	++	++	++			-	+	+
Dark/dunkel	++	++	++			-	+	+
Opt. Temp/Temp.			220 °C					

Dye Characteristics/Produktmerkmale

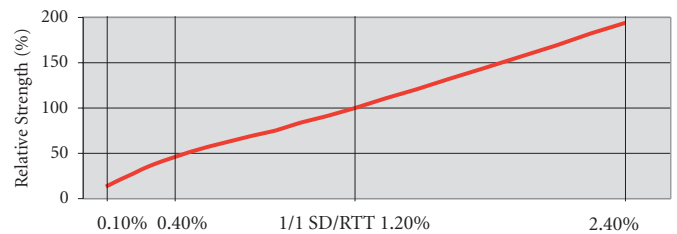
Level uptake/Egalfärbevermögen			1
Barré coverage/ Materialausgleich			very good/ sehr gut
Sensitivity to metal ions Metallempfindlichkeit	Cu	5	
	Fe	5	
pH stability/pH-Stabilität			3.0–10.0

Artificial light/Kunstlicht	
Tungsten	TL84
redder/ röter	bluer, duller/ blauer, stumpfer

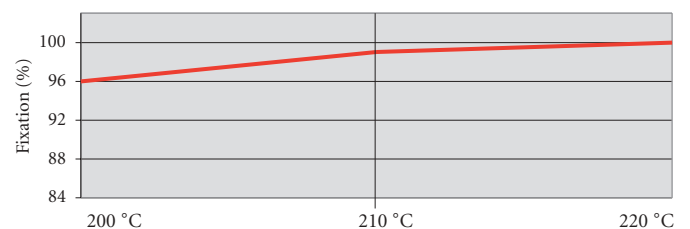
Rate of Dyeing Curve/Ziehkurve



Build-up/Aufbau



Temperature Dependency (Thermofixation) Temperatur-Abhängigkeit (Thermosol)



Dianix Brilliant Violet R

Fastness Properties on Polyester/Echtheiten auf Polyester

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		0.10%	0.40%	1/1 SD/RTT 1.20%	2.40%
Light Fastness	Xenon	6	6	6-7	7
Lichtechtheit	Carbon Arc	5	4	4	4
Sublimation Fastness/ Sublimationsechtheit	180 °C	5	4	4	2-3

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		E	CA	CO	PA	PES	PAN	WO
Water, severe	Wasser, schwer	5	5	5	5	5	5	5
Washing C06/B2S	Wäsche, C06/B2S	4-5	4-5	4-5	4-5	4-5	4-5	4-5
Washing AATCC IIA	Wäsche, AATCC IIA	5	4	5	3-4	5	5	5
Perspiration, alkaline	Schweiß, alkalisch	5	5	5	5	5	5	5
Perspiration, acid	Schweiß, sauer	5	5	5	5	5	5	5
Rubbing, dry	Reibechtheit, trocken			5				
Rubbing, wet	Reibechtheit, naß			5				

Dianix Brilliant Violet B

Suitability/Eignung

Depth of shade Farbtiefe	HT		Carrier	Printing/Druck		Discharge Printing/Ätzdruck			
	Yarn/Garn	Piece/Stück		HTS/HTD	PS/DD	Ground/Fond		Illumination	
						Alkali	SnCl ₂	Alkali	SnCl ₂
Pale/hell	-	++	+	+	++	-	-	+	+
Medium/mittel	-	++	+	-	++	-	-	+	+
Dark/dunkel	-	++	+	-	++	-	-	++	++

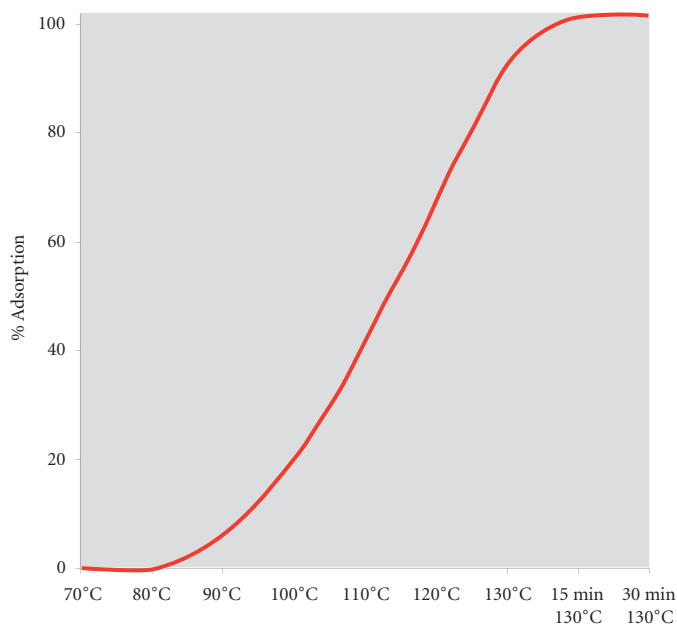
Depth of shade Farbtiefe	HT (PES/CO)		Thermosol (PES/CO)	PES/WO		Acetate	Triacetate	Polyamide
	Yarn/Garn	Piece/Stück		Yarn/Garn	Piece/Stück			
Pale/hell	-	++	-	Suitable/ geeignet 106–120 °C	Suitable/ geeignet 106–120 °C	-	-	+
Medium/mittel	-	++	-			-	-	+
Dark/dunkel	-	++	-			-	-	+
Opt. Temp/Temp.			-					

Dye Characteristics/Produktmerkmale

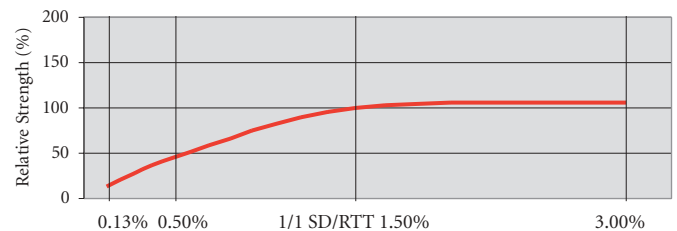
Level uptake/Egalfärbevermögen	3	
Barré coverage/ Materialausgleich	excellent/ ausgezeichnet	
Sensitivity to metal ions Metallempfindlichkeit	Cu	3–4
	Fe	5
pH stability/pH-Stabilität	3.0–9.0	

Artificial light/Kunstlicht	
Tungsten	TL84
redder/ röter	bluer/ blauer

Rate of Dyeing Curve/Ziehkurve



Build-up/Aufbau



Dianix Brilliant Violet B

Fastness Properties on Polyester/Echtheiten auf Polyester

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		0.13%	0.50%	1/1 SD/RTT 1.50%	3.00%
Light Fastness	Xenon	6	6	7	7
Lichtechtheit	Carbon Arc	6	5-6	5-6	5-6
Sublimation Fastness/ Sublimationsechtheit	180 °C	3	2	2	1-2

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		E	CA	CO	PA	PES	PAN	WO
Water, severe	Wasser, schwer	5	5	5	5	5	5	5
Washing C06/B2S	Wäsche, C06/B2S	4-5	4-5	4-5	3-4	4-5	4-5	4-5
Washing AATCC IIA	Wäsche, AATCC IIA	5	4-5	5	3-4	5	5	5
Perspiration, alkaline	Schweiß, alkalisch	5	5	5	5	5	5	5
Perspiration, acid	Schweiß, sauer	5	5	5	5	5	5	5
Rubbing, dry	Reibechtheit, trocken			5				
Rubbing, wet	Reibechtheit, naß			5				

Dianix Brilliant Blue R

Suitability/Eignung

Depth of shade Farbtiefe	HT		Carrier	Printing/Druck		Discharge Printing/Ätzdruck			
	Yarn/Garn	Piece/Stück		HTS/HTD	PS/DD	Ground/Fond		Illumination	
						Alkali	SnCl ₂	Alkali	SnCl ₂
Pale/hell	+	++	+	+	++	-	-	-	-
Medium/mittel	+	++	+	+	++	-	-	-	-
Dark/dunkel	+	++	+	+	++	-	-	-	-

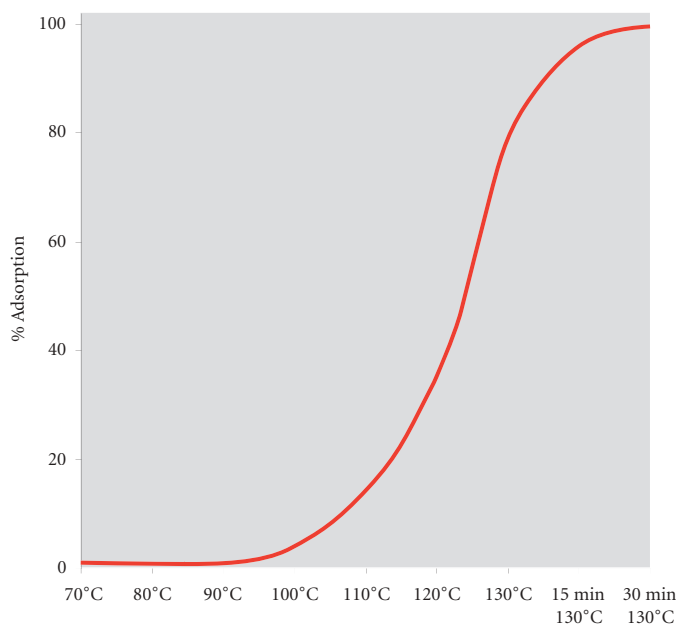
Depth of shade Farbtiefe	HT (PES/CO)		Thermosol (PES/CO)	PES/WO		Acetate	Triacetate	Polyamide
	Yarn/Garn	Piece/Stück		Yarn/Garn	Piece/Stück			
Pale/hell	+	++	++	Suitable/ geeignet 106–120 °C	Suitable/ geeignet 106–120 °C	++	-	-
Medium/mittel	+	++	++			++	-	-
Dark/dunkel	+	++	++			++	-	-
Opt. Temp/Temp.			210 °C					

Dye Characteristics/Produktmerkmale

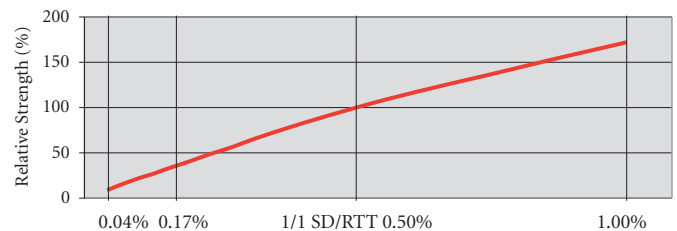
Level uptake/Egalfärbevermögen		3
Barré coverage/ Materialausgleich		moderate/ moderat
Sensitivity to metal ions Metallempfindlichkeit	Cu	5
	Fe	5
pH stability/pH-Stabilität		3.0–6.5

Artificial light/Kunstlicht	
Tungsten	TL84
redder, duller/ röter, stumpfer	redder/ röter

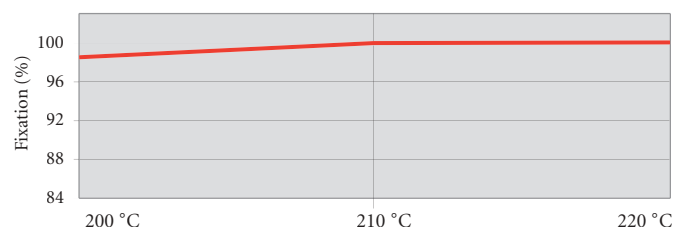
Rate of Dyeing Curve/Ziehkurve



Build-up/Aufbau



Temperature Dependency (Thermofixation) Temperatur-Abhängigkeit (Thermosol)



Dianix Brilliant Blue R

Fastness Properties on Polyester/Echtheiten auf Polyester

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		0.04%	0.17%	1/1 SD/RTT 0.50%	1.00%
Light Fastness	Xenon	5–6	5–6	6	6
Lichtechtheit	Carbon Arc	4	4	5	5–6
Sublimation Fastness/ Sublimationsechtheit	180 °C	4	4	3	3

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		E	CA	CO	PA	PES	PAN	WO
Water, severe	Wasser, schwer	5	5	5	5	5	5	5
Washing C06/B2S	Wäsche, C06/B2S	5	4–5	4–5	4	4–5	4–5	4–5
Washing AATCC IIA	Wäsche, AATCC IIA	5	4–5	4–5	2–3	4	5	5
Perspiration, alkaline	Schweiß, alkalisch	5	5	5	5	5	5	5
Perspiration, acid	Schweiß, sauer	5	5	5	5	5	5	5
Rubbing, dry	Reibechtheit, trocken			5				
Rubbing, wet	Reibechtheit, naß			5				

Dianix Cyanine B

Suitability/Eignung

Depth of shade Farbtiefe	HT		Carrier	Printing/Druck		Discharge Printing/Ätzdruck			
	Yarn/Garn	Piece/Stück		HTS/HTD	PS/DD	Ground/Fond		Illumination	
						Alkali	SnCl ₂	Alkali	SnCl ₂
Pale/hell	-	++	-	-	+	++	++	-	-
Medium/mittel	-	++	-	-	+	+	+	-	-
Dark/dunkel	-	++	-	-	+	+	+	-	-

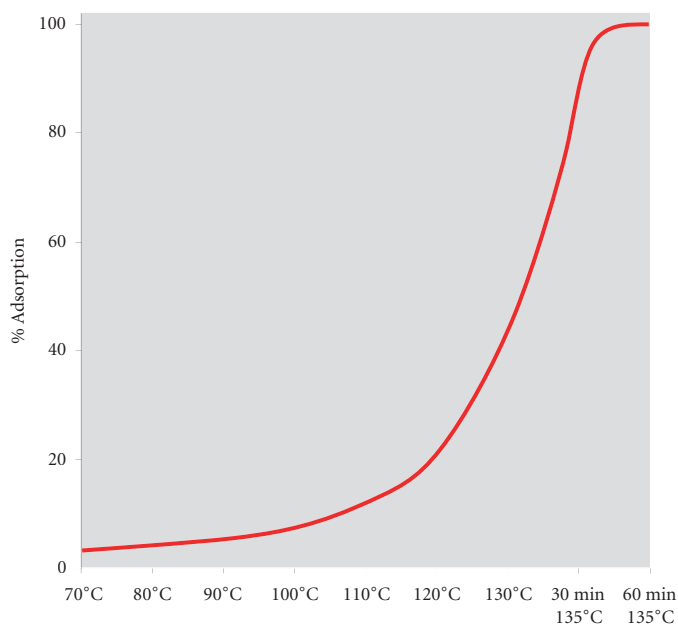
Depth of shade Farbtiefe	HT (PES/CO)		Thermosol (PES/CO)	PES/WO		Acetate	Triacetate	Polyamide
	Yarn/Garn	Piece/Stück		Yarn/Garn	Piece/Stück			
Pale/hell	-	++	++	-	-	-	-	-
Medium/mittel	-	++	++			-	-	-
Dark/dunkel	-	++	++			-	-	-
Opt. Temp/Temp.			220 °C					

Dye Characteristics/Produktmerkmale

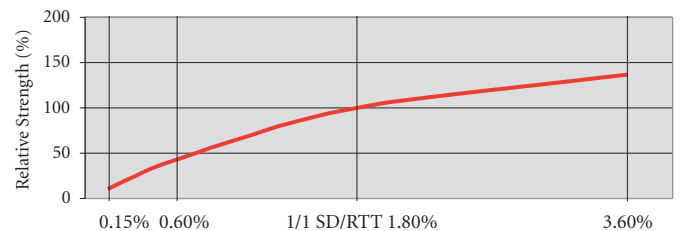
Level uptake/Egalfärbevermögen	1	
Barré coverage/ Materialausgleich	limited/ beschränkt	
Sensitivity to metal ions Metallempfindlichkeit	Cu	5
	Fe	3
pH stability/pH-Stabilität	3.0–4.5	

Artificial light/Kunstlicht	
Tungsten	TL84
greener/ grüner	greener, duller/ grüner, stumpfer

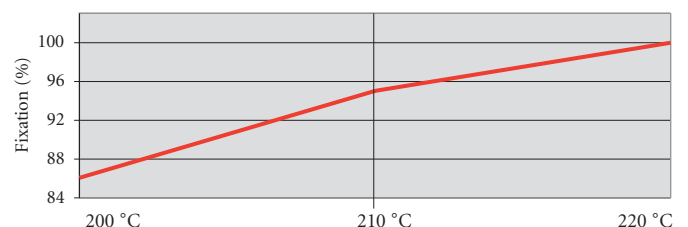
Rate of Dyeing Curve/Ziehkurve



Build-up/Aufbau



Temperature Dependency (Thermofixation) Temperatur-Abhängigkeit (Thermosol)



Dianix Cyanine B

Fastness Properties on Polyester/Echtheiten auf Polyester

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		0.15%	0.60%	1/1 SD/RTT 1.80%	3.60%
Light Fastness	Xenon	3-4	3-4	3-4	3-4
Lichtechtheit	Carbon Arc	2	2	2	2
Sublimation Fastness/ Sublimationsechtheit	180 °C	4-5	4-5	4-5	4-5

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		E	CA	CO	PA	PES	PAN	WO
Water, severe	Wasser, schwer	5	5	5	5	5	5	5
Washing C06/B2S	Wäsche, C06/B2S	4-5	5	4-5	4-5	4-5	4-5	4-5
Washing AATCC IIA	Wäsche, AATCC IIA	5	5	5	4-5	5	5	5
Perspiration, alkaline	Schweiß, alkalisch	5	5	5	5	5	5	5
Perspiration, acid	Schweiß, sauer	5	5	5	5	5	5	5
Rubbing, dry	Reibechtheit, trocken			5				
Rubbing, wet	Reibechtheit, naß			5				

Dianix Turquoise XF

Suitability/Eignung

Depth of shade Farbtiefe	HT		Carrier	Printing/Druck		Discharge Printing/Ätzdruck			
	Yarn/Garn	Piece/Stück		HTS/HTD	PS/DD	Ground/Fond		Illumination	
						Alkali	SnCl ₂	Alkali	SnCl ₂
Pale/hell	+	++	-	+	++	-	-	-	-
Medium/mittel	+	++	-	+	++	-	-	-	-
Dark/dunkel	+	++	-	+	++	-	-	-	-

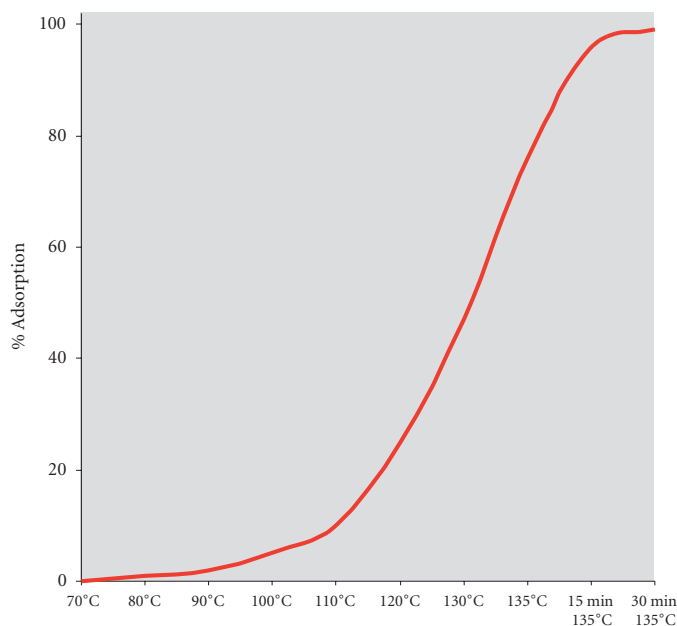
Depth of shade Farbtiefe	HT (PES/CO)		Thermosol (PES/CO)	PES/WO		Acetate	Triacetate	Polyamide
	Yarn/Garn	Piece/Stück		Yarn/Garn	Piece/Stück			
Pale/hell	+	++	++	-	-	-	-	-
Medium/mittel	+	++	++			-	-	-
Dark/dunkel	+	++	++			-	-	-
Opt. Temp/Temp.			220 °C					

Dye Characteristics/Produktmerkmale

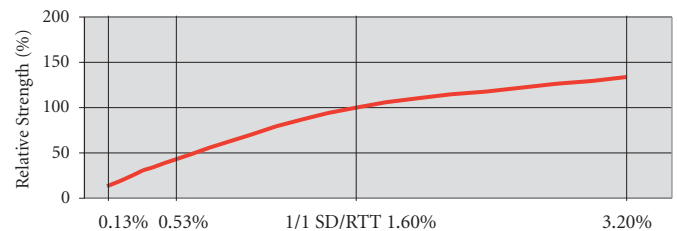
Level uptake/Egalfärbevermögen	2	
Barré coverage/ Materialausgleich	moderate/ moderat	
Sensitivity to metal ions Metallempfindlichkeit	Cu Fe	2 G 5
pH stability/pH-Stabilität	3.0–4.5	

Artificial light/Kunstlicht	
Tungsten	TL84
greener, brighter/ grüner, klarer	duller/ stumpfer

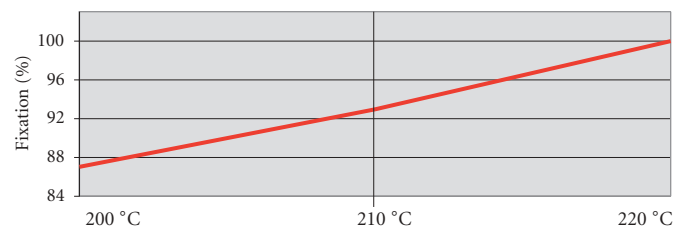
Rate of Dyeing Curve/Ziehkurve



Build-up/Aufbau



Temperature Dependency (Thermofixation) Temperatur-Abhängigkeit (Thermosol)



Dianix Turquoise XF

Fastness Properties on Polyester/Echtheiten auf Polyester

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		0.13%	0.53%	1/1 SD/RTT 1.60%	3.20%
Light Fastness	Xenon	5	5	5-6	5-6
Lichtechtheit	Carbon Arc	3	3-4	5	5-6
Sublimation Fastness/ Sublimationsechtheit	180 °C	5	5	4-5	-

1/1 SD/RTT, reduction cleared/reduktiv gereinigt postset/nachfixiert 180 °C/30 seconds		E	CA	CO	PA	PES	PAN	WO
Water, severe	Wasser, schwer	5	4-5	4-5	5	5	5	5
Washing C06/B2S	Wäsche, C06/B2S	5	4-5	5	4-5	5	5	5
Washing AATCC IIA	Wäsche, AATCC IIA	5	5	4-5	4-5	5	5	4-5
Perspiration, alkaline	Schweiß, alkalisch	5	4-5	5	4-5	4-5	5	5
Perspiration, acid	Schweiß, sauer	5	4-5	5	4-5	4-5	5	5
Rubbing, dry	Reibechtheit, trocken			5				
Rubbing, wet	Reibechtheit, naß			5				



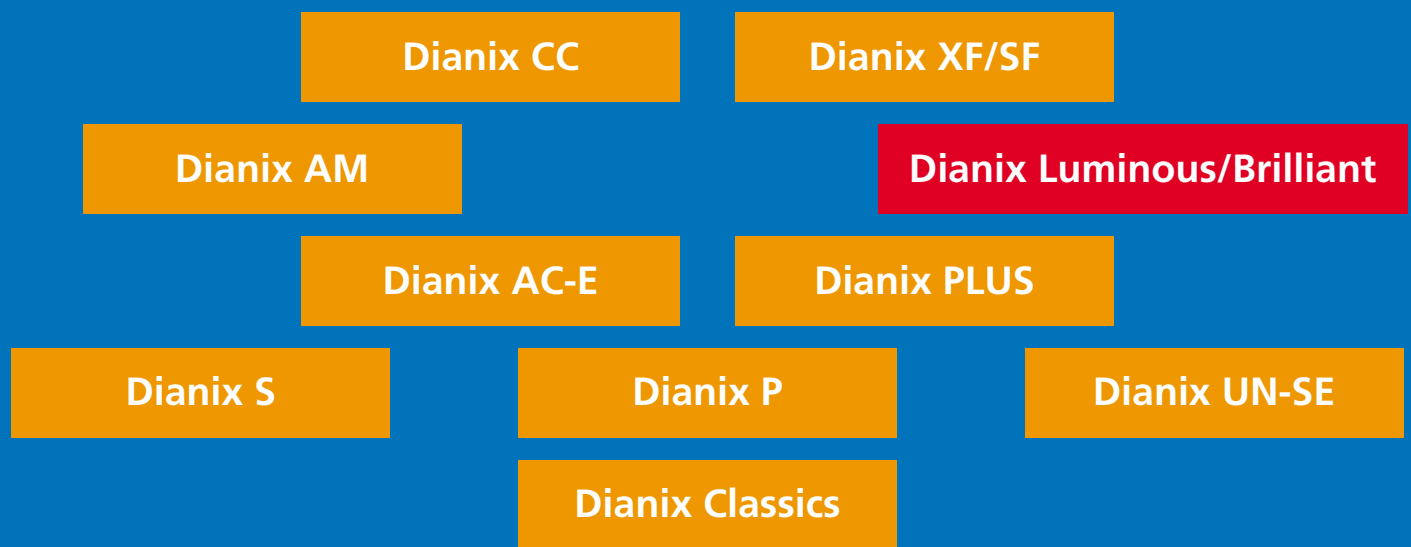




Dianix Luminous Yellow 10G	0.03%		0.10%		0.30%		0.60%	
Dianix Luminous Red G	0.13%		0.53%		1.60%		3.20%	
Dianix Luminous Red B	0.13%		0.53%		1.60%		3.20%	
Dianix Luminous Red 3B	0.13%		0.53%		1.60%		3.20%	
Dianix Luminous Pink 5B	0.08%		0.33%		1.00%		2.00%	
Dianix Brilliant Orange G	0.14%		0.55%		1.65%		3.30%	
Dianix Brilliant Violet R	0.10%		0.40%		1.20%		2.40%	
Dianix Brilliant Violet B	0.13%		0.50%		1.50%		3.00%	
Dianix Brilliant Blue R	0.04%		0.17%		0.50%		1.00%	
Dianix Cyanine B	0.15%		0.60%		1.80%		3.60%	
Dianix Turquoise XF (support dye)	0.13%		0.53%		1.60%		3.20%	

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
- Color Confidence – color 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 Oeko-Tex Standard 100.

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



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