

econfidence[®]
from DyStar[®] ✓

DyStar[®]

Dianix[®] XF2 Dyes

The next generation of high wet fastness dyes



Features and benefits

Dianix[®] XF2 is the next generation of high wet fastness dyes meeting most demanding retailer and brand specifications for high wet-fast outlets

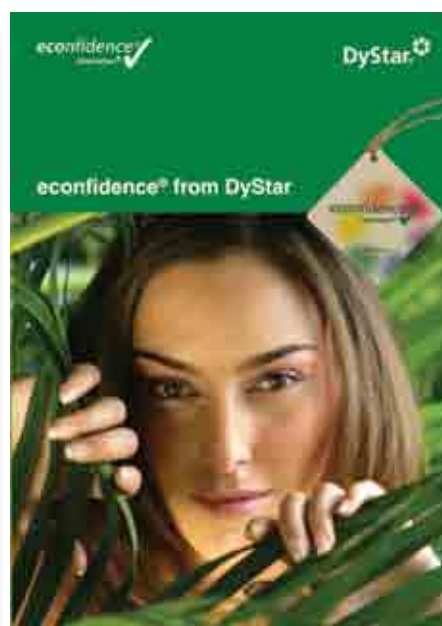
- ✓ Dianix[®] XF2 is a new high wet fastness range consisting of five dyes
- ✓ Further development of the well established Dianix[®] XF dyes
- ✓ Excellent wet fastness performance
- ✓ Good build-up at 130 °C
- ✓ Highly suitable for dyeing polyester and polyester/elastane blends
- ✓ Good compatibility for Right-First-Time dyeing of ternary shades



ECO 2

Eco Profile

- ✓ No MAK amines generated by reductive cleavage according to EU Directive 2002/61/EEC and German Consumer Goods Ordinance
- ✓ No allergenic disperse dyes according to Oeko-Tex® Standard 100
- ✓ No restricted polychlorinated aromatic compounds above acceptable trace level
- ✓ Heavy metal content well below ETAD® limit value guideline
- ✓ Full compliance with Oeko-Tex® Standard 100
- ✓ Meets relevant Restricted Substance Lists (RSL)
- ✓ All dyes are free of organic chlorine
- ✓ AOX-free dyes are Dianix® Yellow Brown XF2, Dianix® Rubine XF2 and Dianix® Blue XF2
- ✓ bluesign® approved



TECH **3**

Features, Benefits and Technical details

Dianix[®] Yellow Brown XF2

- ✓ General wet fastness performance on polyester similar to slightly superior and on polyester/elastane blends much superior compared to Dianix[®] Yellow Brown XF
- ✓ Superior sublimation fastness compared to Dianix[®] Yellow Brown XF and commonly used high wet fast Yellow Brown and Orange dyes
- ✓ Excellent result in Nike[®] storage migration test method
- ✓ Superior build-up on polyester/elastane blends vs. Dianix[®] Yellow Brown XF due to lower elastane staining
- ✓ pH stability: 4.0 – 5.5
- ✓ AOX-free



Fastness comparison on PES 75d/72f at integ 30

Dianix® Yellow Brown XF2						Dianix® Yellow Brown XF						
CA	CO	PA	PES	PAN	WO	Washing adidas® 40 °C	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4-5	4-5	4-5	4-5	4-5	4
CA	CO	PA	PES	PAN	WO	Washing Nike® 50 °C	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4-5	4-5	4-5	4-5	4-5	4-5
CA	CO	PA	PES	PAN	WO	Washing, 60 °C ISO 105-C06 C2S	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4-5	4-5	4-5	4-5	4-5	4
CA	CO	PA	PES	PAN	WO	Perspiration, acid ISO 105-E04	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4-5	4-5	4-5	4-5	4-5	4-5
PES					CO	Dry heat 210 °C, 30 s ISO 105-P01	PES				CO	
4-5					4-5		3				3-4	

Fastness comparison on PES/elastane 82/18 at integ 30

Dianix® Yellow Brown XF2						Dianix® Yellow Brown XF						
CA	CO	PA	PES	PAN	WO	Washing adidas® 40 °C	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4-5	4-5	4-5	3-4	4-5	3-4
CA	CO	PA	PES	PAN	WO	Washing Nike® 50 °C	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4-5	4-5	4-5	3-4	4-5	3-4
CA	CO	PA	PES	PAN	WO	Washing, 60 °C ISO 105-C06 C2S	WO	PAN	PES	PA	CO	CA
4	4-5	3-4	4-5	4-5	4-5		4	4-5	4-5	3	4-5	3
CA	CO	PA	PES	PAN	WO	Perspiration, acid ISO 105-E04	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4-5	4-5	4-5	4-5	4-5	4-5
PES					CO	Dry heat 210 °C, 30 s ISO 105-P01	PES				CO	
3-4					4		2-3				3-4	

Features, Benefits and Technical details

Dianix® Rubine XF2

- ✓ General wet fastness performance on polyester and polyester/elastane blends slightly superior compared to Dianix® Rubine XFS
- ✓ Superior sublimation fastness compared to Dianix® Rubine XFS
- ✓ Good build-up on polyester and polyester/elastane blends
- ✓ pH stability: 3.0 – 5.0
- ✓ To obtain best wet fastness it is recommended to use 1 g/l Sera® Quest M-USP in the dye bath
- ✓ AOX-free



Fastness comparison on PES 75d/72f at integ 30

Dianix® Rubine XF2						Dianix® Rubine XFS											
CA	CO	PA	PES	PAN	WO	Washing adidas® 40 °C						WO	PAN	PES	PA	CO	CA
3-4	4-5	4-5	4	4-5	4-5	4-5	4-5	4	4-5	4-5	3-4						
CA	CO	PA	PES	PAN	WO	Washing Nike® 50 °C						WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	5	4-5	4-5	5	4-5	4-5	4-5	4-5						
CA	CO	PA	PES	PAN	WO	Washing AATCC IIA 49 °C						WO	PAN	PES	PA	CO	CA
3-4	4-5	4	4-5	4-5	4-5	4-5	4-5	4	3-4	4-5	2-3						
CA	CO	PA	PES	PAN	WO	Perspiration, acid ISO 105-E04						WO	PAN	PES	PA	CO	CA
4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4						
PES					CO	Dry heat 210 °C, 30 s ISO 105-P01						PES					CO
3-4					4	3					3-4						

Fastness comparison on PES/elastane 82/18 at integ 30

Dianix® Rubine XF2						Dianix® Rubine XFS											
CA	CO	PA	PES	PAN	WO	Washing adidas® 40 °C						WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4						
CA	CO	PA	PES	PAN	WO	Washing Nike® 50 °C						WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5						
CA	CO	PA	PES	PAN	WO	Washing AATCC IIA 49 °C						WO	PAN	PES	PA	CO	CA
4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4-5	3-4						
CA	CO	PA	PES	PAN	WO	Perspiration, acid ISO 105-E04						WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5						
PES					CO	Dry heat 210 °C, 30 s ISO 105-P01						PES					CO
3-4					4-5	3					4						

Features, Benefits and Technical details

Dianix® Blue XF2

- ✓ General wet fastness performance on polyester and polyester/elastane blends slightly superior compared to Dianix® Blue XF
- ✓ Much superior sublimation fastness compared to Dianix® Blue XF
- ✓ Good build-up on polyester and polyester/elastane blends
- ✓ pH stability: 3.5 – 4.5
- ✓ To obtain best shade reproducibility it is recommended to use 1 g/l Sera® Quest M-USP in the dyebath
- ✓ Similar reduction stability compared to Dianix® Blue XF; addition of 2 g/l Sera® Con P-NR recommended for dyeing to prevent reduction
- ✓ AOX-free



Fastness comparison on PES 75d/72f at integ 30

Dianix® Blue XF2							Dianix® Blue XF										
CA	CO	PA	PES	PAN	WO	Washing adidas® 40 °C						WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4	4-5	4-5							4-5	4-5	4	4	4-5	3-4
CA	CO	PA	PES	PAN	WO	Washing Nike® 50 °C						WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5							4-5	4-5	4-5	4	4-5	4
CA	CO	PA	PES	PAN	WO	Washing AATCC IIA 49 °C						WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5							4-5	4-5	4-5	3-4	4-5	3-4
CA	CO	PA	PES	PAN	WO	Perspiration, acid ISO 105-E04						WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5							4-5	4-5	4-5	4	4-5	3-4
PES				CO	Dry heat 210 °C, 30 s ISO 105-P01						PES				CO		
4				4-5							3				3-4		

Fastness comparison on PES/elastane 82/18 at integ 30

Dianix® Blue XF2							Dianix® Blue XF										
CA	CO	PA	PES	PAN	WO	Washing adidas® 40 °C						WO	PAN	PES	PA	CO	CA
4-5	4-5	4	4	4-5	4-5							4-5	4-5	4-5	4	4-5	3-4
CA	CO	PA	PES	PAN	WO	Washing Nike® 50 °C						WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5							4-5	4-5	4-5	4-5	4-5	4
CA	CO	PA	PES	PAN	WO	Washing AATCC IIA 49 °C						WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5							4-5	4-5	4-5	3-4	4-5	3-4
CA	CO	PA	PES	PAN	WO	Perspiration, acid ISO 105-E04						WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5							4-5	4-5	4-5	4-5	4-5	4-5
PES				CO	Dry heat 210 °C, 30 s ISO 105-P01						PES				CO		
4				4-5							3				3-4		

Features, Benefits and Technical details

Dianix® Navy XF2

- ✓ General wet fastness performance on polyester superior and polyester/elastane blends much superior compared to Dianix® Navy XF
- ✓ Superior sublimation fastness compared to Dianix® Navy XF
- ✓ Superior rate of build-up to heavy navies compared to Dianix® Navy XF
- ✓ Shade on polyester/elastane blends stays close to shade on polyester
- ✓ pH stability: 3.5 – 4.5
- ✓ Superior reduction stability compared to Dianix® Navy XF; for safety reason addition of 2 g/l Sera® Con P-NR recommended for dyeing to prevent reduction
- ✓ Free of organic chlorine



Fastness comparison on PES 75d/72f as Navy

Dianix® Navy XF2						Dianix® Navy XF						
CA	CO	PA	PES	PAN	WO	Washing adidas® 40 °C	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4-5	4-5	4	3-4	4	3
CA	CO	PA	PES	PAN	WO	Washing Nike® 50 °C	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4-5	4-5	4	3-4	4	3-4
CA	CO	PA	PES	PAN	WO	Washing, 60 °C ISO 105-C06 C2S	WO	PAN	PES	PA	CO	CA
4-5	4-5	4	4-5	4-5	4-5		4-5	4-5	4-5	4	4-5	3-4
CA	CO	PA	PES	PAN	WO	Perspiration, acid ISO 105-E04	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4	4-5	4	3-4	4	3-4
PES					CO	Dry heat 210 °C, 30 s ISO 105-P01	PES				CO	
3-4					4-5		3				3-4	

Fastness comparison on PES/elastane 82/18 as Navy

Dianix® Navy XF2						Dianix® Navy XF						
CA	CO	PA	PES	PAN	WO	Washing adidas® 40 °C	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4-5	4-5	4-5	4	4-5	3-4
CA	CO	PA	PES	PAN	WO	Washing Nike® 50 °C	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4-5	4-5	4-5	3-4	4-5	3
CA	CO	PA	PES	PAN	WO	Washing, 60 °C ISO 105-C06 C2S	WO	PAN	PES	PA	CO	CA
4-5	4-5	4	4-5	4-5	4-5		4	4-5	3-4	3	4	2-3
CA	CO	PA	PES	PAN	WO	Perspiration, acid ISO 105-E04	WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5		4-5	4-5	4-5	4-5	4-5	3-4
PES					CO	Dry heat 210 °C, 30 s ISO 105-P01	PES				CO	
3-4					4-5		2-3				4	

Features, Benefits and Technical details

Dianix[®] Black XF2

- ✓ General wet fastness performance on polyester and polyester/elastane blends superior compared to Dianix[®] Black XF
- ✓ Superior sublimation fastness compared to Dianix[®] Black XF
- ✓ Good build-up on polyester and polyester/elastane blends
- ✓ Shade on polyester/elastane blends stays close to shade on polyester
- ✓ pH stability: 4.0 – 5.0
- ✓ Superior reduction stability compared to Dianix[®] Black XF; for safety reason addition of 2 g/l Sera[®] Con P-NR recommended for dyeing to prevent reduction
- ✓ Free of organic chlorine



Fastness comparison on PES 75d/72f as Black

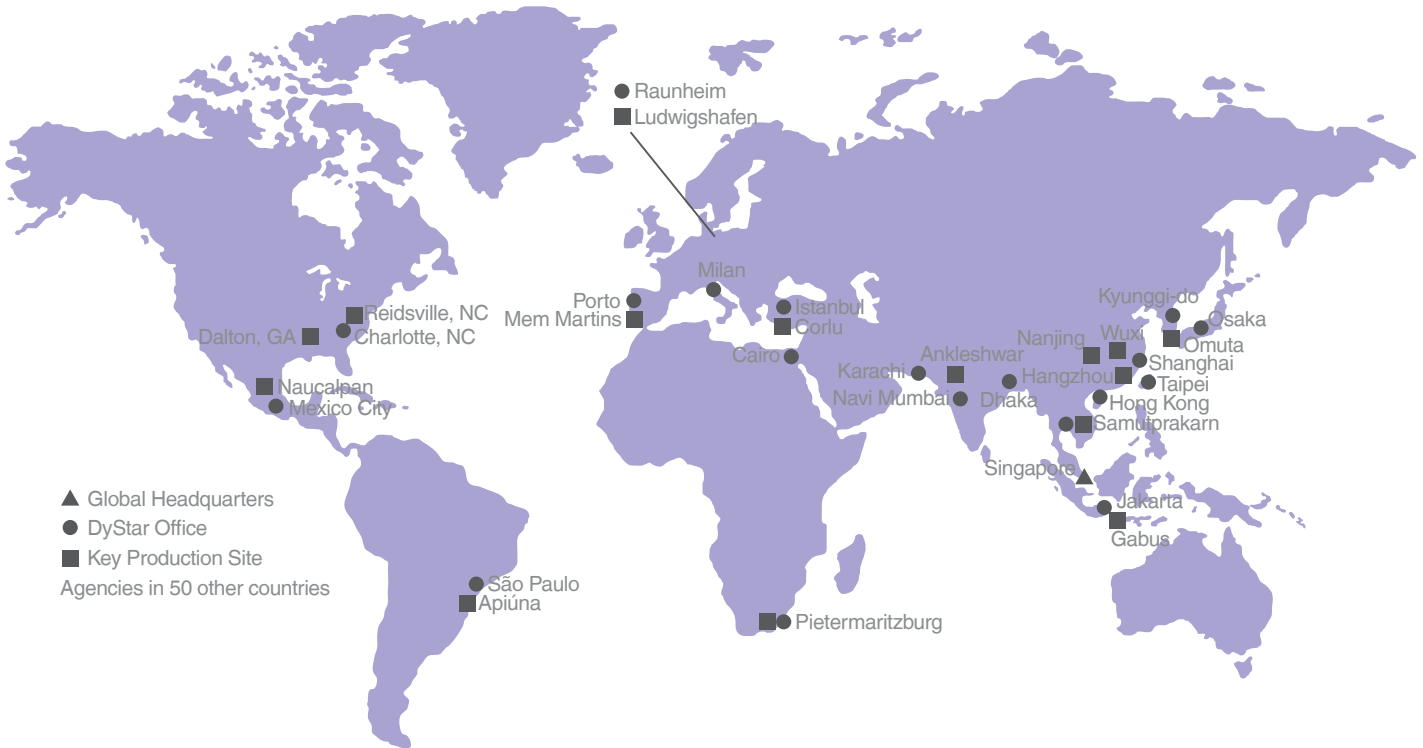
Dianix® Black XF2							Dianix® Black XF											
CA	CO	PA	PES	PAN	WO	Washing adidas® 40 °C							WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5								4-5	4-5	4-5	4-5	4-5	4-5
CA	CO	PA	PES	PAN	WO	Washing Nike® 50 °C							WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5								4-5	4-5	4-5	4-5	4-5	4
CA	CO	PA	PES	PAN	WO	Washing AATCC IIA 49 °C							WO	PAN	PES	PA	CO	CA
4	4-5	4	4-5	4-5	4-5								4-5	4-5	4-5	3-4	4-5	3-4
CA	CO	PA	PES	PAN	WO	Perspiration, acid ISO 105-E04							WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5								4-5	4-5	4-5	4-5	4-5	4
PES					CO	Dry heat 210 °C, 30 s ISO 105-P01							PES					CO
3-4					4								2					3-4

Fastness comparison on PES/elastane 82/18 as Black

Dianix® Black XF2							Dianix® Black XF											
CA	CO	PA	PES	PAN	WO	Washing adidas® 40 °C							WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5								4-5	4-5	4-5	4	4-5	4
CA	CO	PA	PES	PAN	WO	Washing Nike® 50 °C							WO	PAN	PES	PA	CO	CA
4-5	4-5	4	4-5	4-5	4-5								4-5	4-5	4-5	3-4	4-5	3-4
CA	CO	PA	PES	PAN	WO	Washing AATCC IIA 49 °C							WO	PAN	PES	PA	CO	CA
4	4-5	4	4-5	4-5	4-5								4-5	4-5	4-5	3	4-5	3
CA	CO	PA	PES	PAN	WO	Perspiration, acid ISO 105-E04							WO	PAN	PES	PA	CO	CA
4-5	4-5	4-5	4-5	4-5	4-5								4-5	4-5	4-5	4-5	4-5	4
PES					CO	Dry heat 210 °C, 30 s ISO 105-P01							PES					CO
3-4					4								2					3-4

Committed to Sustainability.

At DyStar, our products and services help customers worldwide reduce costs, shorten lead times and meet stringent quality and ecological specifications.



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Global Headquarters
DyStar Singapore Pte Ltd
 Tel: +65 66 71 28 00 Fax: +65 66 59 13 28 DyStar.Singapore@DyStar.com
www.DyStar.com

