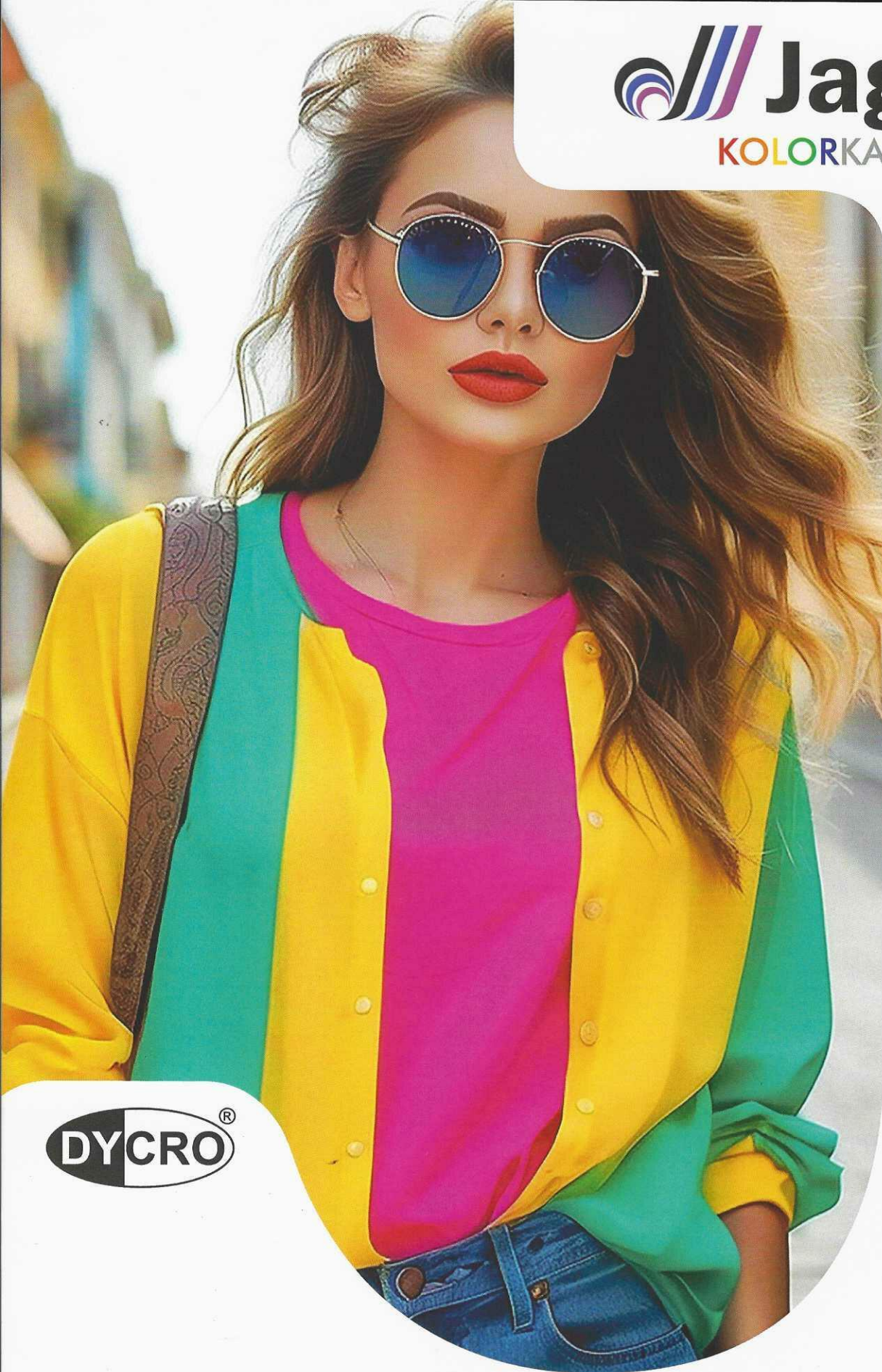




DYCRO[®]

DYCROFIX SE

Dycrofix Reactive Dyes					
	Gold SE	Orange SE	Brilliant Red SE	Deep Sea SE	Black SE
1/1 SD % dystuff(CO knit bleached)	1.64	1.19	3.53	2.6 NL	3-2 Bk
1/1 SD g/kg dyestuff(CO merc./PB/C1)	15.7	10.7	29.1	20 NL	30 BK
Light Fastness 1/12 SD	6-7	3-4	4	-	-
Light Fastness 1/1 SD	5	4	5	5 NL	5 BK
AATCC 16E -1987 1/1SD 20 AFU	5	4-5	5	5	5
AATCC 16E -1987 1/1SD 40 AFU	5	4-5	4-5	4-5	4-5
Fastness to washing 60 c	5	5	4-5	4-5	4-5
Fastness to multiple washing 60 c	5	5	4-5	4-5	5
Fastness to prroxide washing 95 c	4-5	4	5	4-5	5
Fastness to water	5	4-5	4-5	4-5	5
Fastness to perspiration alkaline/acid	5/5	3-4/4	4-5/4-5	4-5/4-5	4-5/5
Fastness to chlorinated water	4-5	3-4	4-5	4-5	4
Fastness to oxidatve bleach damage	5	4	4-5	4-5	5
Nitrogen oxides 1 cycle	4-5	4-5	5	4-5	5
Nitrogen oxides 3 cycle	4-5	4-5	4-5	4-5	4-5

Dycrofix SE Features/Advantages

The global textile industry is striving to strike a balance between economic growth and environmental sustainability. With increasing focus on conserving water and protecting the environment, Dycrofix SE dyes enable textile mills to boost production efficiency while reducing processing time.

Dycrofix SE (High Productivity) sets a new standard for deep shades in cotton dyeing. It offers intense color strength, excellent washing fastness, and minimizes effluent discharge. This innovative technology helps textile mil significantly reduce water and energy consumption while delivering superior dyeing results.



► Warm Washing System

The advanced warm washing technology in Dycrofix SE ensures rapid and effective dye exhaustion for cotton, cellulosic fibers, and their blends. This system also simplifies the removal of hydrolyzed dye at lower temperatures, enhancing efficiency while conserving energy and water.

- Efficient Dye Exhaustion: Rapid, high-level exhaustion for cotton and fibers.
- Energy & Water Savings: Reduced temperatures for eco-friendly processes.



► Easy Application & Suitable for Extreme Low Liquor Ratio Dyeing

Dycrofix SE dyes are designed for seamless application, even in processes requiring very low liquor ratios. Their compatibility with existing dyeing methods makes them an ideal choice for modern, efficient textile manufacturing.

- Versatile Application: Works well in low liquor ratio dyeing.
- Compatibility: Easy integration with existing systems.



► Long-Lasting Color

Dycrofix SE meets the highest sustainability standards, including ZDHC Level 3 approval. These eco-friendly dyes not only reduce resource consumption but also support greener production practices for a better future.

- Exceptional Color Stability: Vibrant shades that last through multiple washes.
- Resistant to Harsh Conditions: Withstands chlorine, detergents, and oxidation.



► Environment-Friendly Products

Dycrofix SE meets the highest sustainability standards, including ZDHC Level 3 approval. These eco-friendly dyes not only reduce resource consumption but also support greener production practices for a better future.

- sustainable Standards: Meets ZDHC Level 3 certifications.
- Eco-Friendly Manufacturing: Reduces resource consumption for greener production.
- PCA(Para Chloro Aniline) Free Dyestuff

Alkali addition recommendations

Soda ash

1. portion, add 0.5-1.0 g/l of soda ash, progressively dispensed over 20-30 min
2. portion, add remaining quantity, progressively dispensed over 20-30 min

Mixed alkali, soda ash/NaOH

1. portion, add 0.5-1.0 g/l of soda ash, progressively dispensed over 20-30 min
2. portion, add remaining quantity of soda ash and caustic soda, progressively dispensed over 20-30 min

Sodium bicarbonate / Soda ash (for CV and CO merc. fabrics only)

1. portion, add 1.0 g/l sodium bicarbonate, linear dispensed over 10-15 mins
2. portion, add 1-2 g/l soda ash, linear or progressive dispensed over 20-30 mins
3. portion, add remaining soda ash, progressive dispensed over 20-30 mins

This method shows the best leveling performance on CV and CO merc. fabrics

The recommended dyeing procedure is the 80°C/60°C migration method

Washing off 100% CEL

Washing-off, pale / medium shades	LR 1:6 and below
Rinse for 10 min at 60°C/140°F	
Rinse for 10 min at 60°C/140°F	1-2 g/l Soaping Agent
Rinse for 10 min at 60°C/140°F	
Soften as usual or aftertreat	Neutralization at pH 6 - 7

Washing-off, dark / deep shade	LR 1:6 and below
Rinse for 10 min at 60°C/140°F	
Rinse for 10 min at 60°C/140°F	
Rinse for 10 min at 60°C/140°F	1-2 g/l Soaping Agent
Rinse for 10 min at 60°C/140°F	Neutralization at pH 6 - 7
Soften as usual or aftertreat	

Notes on washing-off

No pH adjustment is necessary, pH around 10 is to be expected after the first rinse. All wet fastness properties are met, even though the last rinsing bath remains colored. Depending on fabric quality, machinery equipment and liquor ratio a further reduction of rinsing baths is possible.

Salt and alkali recommendations at different liquor ratios : Soda ash method

Liquor ratio at 6:1								
Dycrofix SE	%	<0.5	0.5	1	2	3	4	≥ 5
Auxiliaries								
Salt	g/l	10	20	30	40	50	60	70
Soda ash	g/l	14	16	18	20	20	20	20

Liquor ratio at 7:1								
Dycrofix SE	%	<0.5	0.5	1	2	3	4	≥ 5
Auxiliaries								
Salt	g/l	20	30	40	50	60	70	80
Soda ash	g/l	10	12	14	16	18	20	20

Liquor ratio at and above 8:1								
Dycrofix SE	%	<0.5	0.5	1	2	3	4	≥ 5
Auxiliaries								
Salt	g/l	30	40	50	60	80	90	100
Soda ash	g/l	8	10	12	14	16	18	18

For LR 5:1, the amount of salt can be reduced by 10%
For LR 4:1, the amount of salt can be reduced by 20%

Salt and alkali recommendations at different liquor ratios : Mixed alkali method

Liquor ratio at 6:1								
Dycrofix SE	%	<0.5	0.5	1	2	3	4	≥ 5
Auxiliaries								
Salt	g/l	10	20	30	40	50	60	70
Soda ash	g/l	10	10	5	5	5	5	5
NaOH 36°Bé/66°Tw	ml/l	0.5	1	2	2.5	3	3.5	4

Liquor ratio at 7:1								
Dycrofix SE	%	<0.5	0.5	1	2	3	4	≥ 5
Auxiliaries								
Salt	g/l	20	30	40	50	60	70	80
Soda ash	g/l	10	5	5	5	5	5	5
NaOH 36°Bé/66°Tw	ml/l	-	0.75	1.25	1.5	2	2.5	3

Liquor ratio at and above 8:1								
Dycrofix SE	%	<0.5	0.5	1	2	3	4	≥ 5
Auxiliaries								
Salt	g/l	30	40	50	60	80	90	100
Soda ash	g/l	8	5	5	5	5	5	5
NaOH 36°Bé/66°Tw	ml/l	-	0.5	1.0	1.25	1.5	2.0	2.5

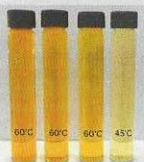
For LR 5:1, the amount of 36°Bé/66°Tw can be increased by 20%
For LR 4:1, the amount of 36°Bé/66°Tw can be increased by 30%

Notes

For CV and CO merc. the amount of salt can be reduced by 20-30%

Dycrofix SE dyes Wash-off & Fastness from Warm Washing System

Dycrofix Gold SE



> Fastness

CA CO PA PET PAN WO
Washing (ISO 105-C06: C25:2010, 60°C x 30min.)

4-5 4-5 4-5 4-5 4-5 4-5

Water (ISO 105-E01: 2013, 37°C x 4 hrs.)

4-5 4-5 4-5 4-5 4-5 4-5

Chlorinated Water
4-5

Dycrofix Orange SE



> Fastness

CA CO PA PET PAN WO
Washing (ISO 105-C06: C25:2010, 60°C x 30min.)

4-5 4-5 4-5 4-5 4-5 4-5

Water (ISO 105-E01: 2013, 37°C x 4 hrs.)

4-5 4-5 4-5 4-5 4-5 4-5

Chlorinated Water
3-4

Dycrofix Brilliant Red SE



> Fastness

CA CO PA PET PAN WO
Washing (ISO 105-C06: C25:2010, 60°C x 30min.)

4-5 4-5 4-5 4-5 4-5 4-5

Water (ISO 105-E01: 2013, 37°C x 4 hrs.)

4-5 4 4-5 4-5 4-5 4-5

Chlorinated Water
4-5

Dycrofix Deep Sea SE



> Fastness

CA CO PA PET PAN WO
Washing (ISO 105-C06: C25:2010, 60°C x 30min.)

4-5 4-5 4-5 4-5 4-5 4-5

Water (ISO 105-E01: 2013, 37°C x 4 hrs.)

4-5 4-5 4-5 4-5 4-5 4-5

Chlorinated Water
4-5

Dycrofix Black SE



> Fastness

CA CO PA PET PAN WO
Washing (ISO 105-C06: C25:2010, 60°C x 30min.)

4-5 4-5 4-5 4-5 4-5 4-5

Water (ISO 105-E01: 2013, 37°C x 4 hrs.)

4-5 4-5 4-5 4-5 4-5 4-5

Chlorinated Water
4

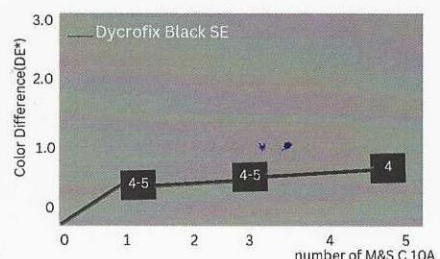
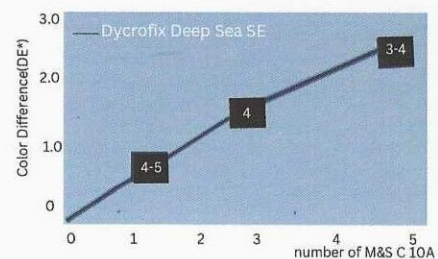
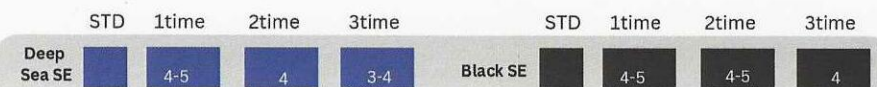
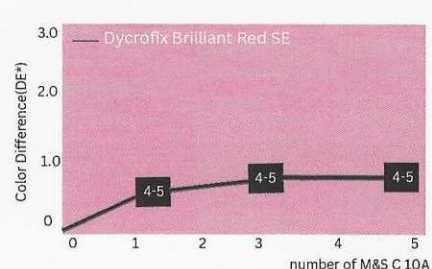
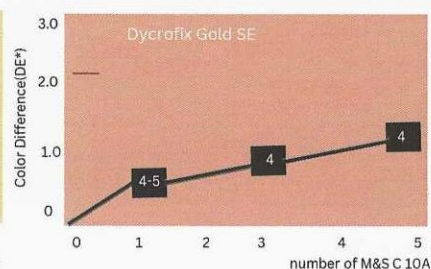
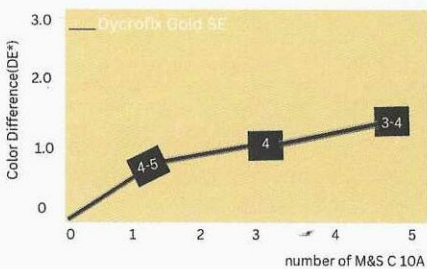


Long Lasting colors



M&S C10A(ISO 105-009) method is to assess any color change which may occur during repeat washing with an oxidative bleach detergent. Tume test has a similar effect to 20times home laundering.

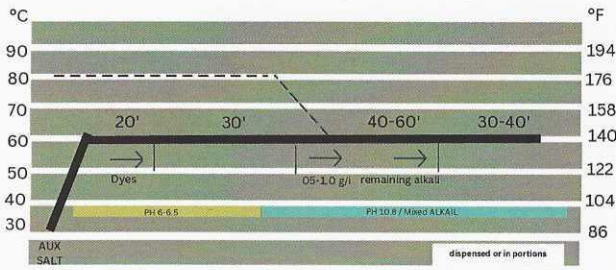
Test Method : M85 C10A (COLOUR FASTNESS TO OXIDATIVEBLEACH DAMAGE!)
ECE Reference Detergent (A) (without optical brightened): 10.0g/L
Sodium Perborate Tetrahydrate (NaBO3·4H2O) (12.0g/L
TAED (Tetra-Acetyl Ethylene Diamine) at 100% activity: 1.8g/L
Method: Reagent 100ml, Fabric 1.0g, Liquor Ratio 1100,60 x 30min.



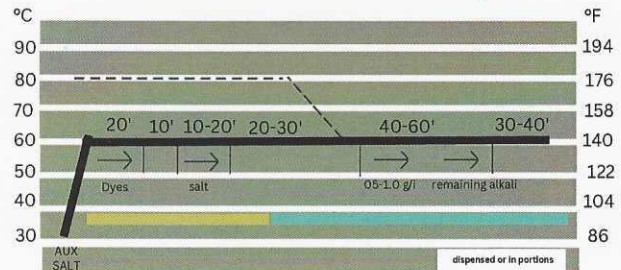
Exhaust dyeing applications

Dyeing methods for 100% CEL

60°C/140°F method for deep shades (Dycrofix SE)



60°C/140°F method for deep shades (Dycrofix SE)



Fastness to chlorinated water

stability to chlorine becomes much Highest chlorinated water fastness ensures long-lasting color quality required by current technical trends. These days, the consumer preference in all fields of textiles use is both for wash and wear and high wash fastness h color stability a y and high h washable quality as well, the Sactor because chlorine is widely used in purification of tap water, washing machine and water pipe. Especially Activewear and swimming cotton wear are used to be washed more frequently To achieve high color important

STD 20PPM 50PPM



STD 20PPM 50PPM



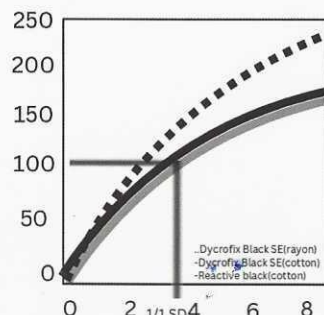
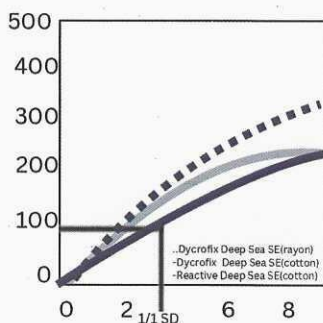
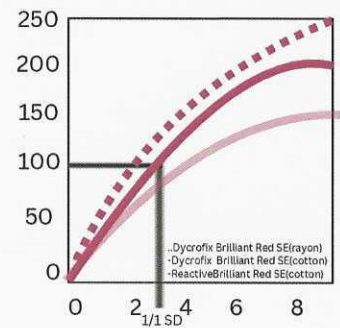
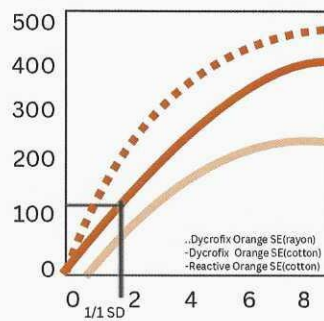
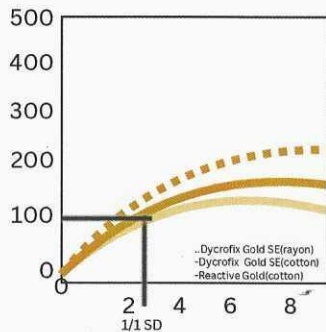
STD 20PPM 50PPM



*Test method
150 105-603 2010
Active chlorine 20, 50ppm, 27°C x thr

Build-up property

Dycrofix SEdyes high color intensity results in lower dye and salt requirements, leding to the waem washing System.



*Exhaust dyeing
-Test Fabric: CM 40's interlock, Rayon 30's/span
-Method: 60°C x 60min. Liquor Ratio = 1:10
-Chemical Requirement
1. Cotton
1)Dycrofix Gold SE
2)Dycrofix Orange SE
3)Dycrofix Brilliant Red SE
4)Dycrofix Deep Sea SE
5)Dycrofix Black SE
2. Rayon
1)Dycrofix Gold SE
2)Dycrofix Orange SE
3)Dycrofix Brilliant Red SE
4)Dycrofix Deep Sea SE
5)Dycrofix Black SE