



DYCRO[®]

DYCROFIX JHP

Dycrofix Reactive Dyes		 Yellow JHP	 Brill Red JHP	 Navy JHP	 Black JHP
1/1 SD (% O.w.f.)		2.8	2.0	2.4	5.5
Light		4-5 / 4-5	4 / 4-5	3-4 / 3	4-5 / 4
Water		4-5 / 4-5	4-5 / 4	4-5 / 4-5	4-5 / 4-5
Perspiration		4-5 / 4-5	4 / 4	4-5 / 4-5	4-5 / 4-5
Washing	CA	4-5	4-5	4-5	4-5
	CO	4-5	4-5	4-5	4-5
	CP	4-5	4-5	4-5	4-5
	PAS	4-5	4-5	4-5	4-5
	PAN	4-5	4-5	4-5	4-5
	WO	4-5	4-5	4-5	4-5
M&S C10A (Color retention)		4-5	4-5	4-5	4-5
Chlorinated Water		4-5	4-5	4-5	4-5
Rubbing		4-5 / 3-5	4-5 / 3	4-5 / 3	4-5 / 2-3
Dischargeability		B / A	B / B	W / A	W / A

Dycrofix JHP Features/Advantages

The global textile industry is increasingly focused on balancing economic growth with environmental sustainability. As water conservation and eco-friendly practices gain importance, Dycrofix JHP dyes empower textile mills to enhance production efficiency while significantly reducing processing time.

Dycrofix JHP redefines standards for deep shades in cotton dyeing, delivering intense color strength, excellent washing fastness, and lower effluent discharge. This cutting-edge technology enables textile mills to achieve superior dyeing results while conserving water, energy, and minimizing their environmental impact.



► A Sustainable Solution for Modern Textiles

The textile industry is striving to balance economic growth with environmental responsibility. Dycrofix JHP dyes are designed to help mills improve production efficiency while addressing key sustainability concerns, such as reducing water and energy consumption.



► Unmatched Performance for Cotton Dyeing

Dycrofix JHP sets a new quality standard for deep shades in cotton dyeing. With intense color strength and high wet fastness, these dyes deliver superior results. Mills benefit from shorter processing times and less effluent discharge, improving both productivity and environmental impact.



► Efficient Dyeing with Warm Washing Technology

Dycrofix JHP ensures rapid and high exhaustion for cotton, cellulosic fibers, and blends. The Warm Washing System simplifies hydrolyzed dye removal at low temperatures, reducing water usage by up to 35% and cycle time by 25%, while achieving exceptional wet and overall fastness.



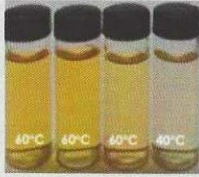
► Eco-Friendly and Easy to Implement

Dycrofix JHP dyes meet rigorous environmental standards, including ZDHC Level 3 and approval. These dyes are compatible with existing recipes and processes, ensuring an effortless transition for mills. Long-lasting, stable colors that maintain their vibrancy through multiple washes, supporting sustainability in fashion and apparel.

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

Dycrofix Yellow JHP

Wash-off residue (Liquor = 1:10)



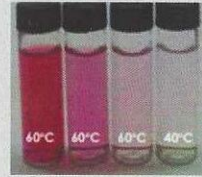
> Fastness

CA	CO	PA	PET	PAN	WO
4	4-5				
Washing (ISO 105-C06: C25:2010, 60°C x 30min.)					
3-4	4-5				
Water (ISO 105-E01: 2013, 37°C x 4 hrs.)					

Chlorinated Water
4

Dycrofix Brill Red JHP

Wash-off residue (Liquor = 1:10)



> Fastness

CA	CO	PA	PET	PAN	WO
4	4-5				
Washing (ISO 105-C06: C25:2010, 60°C x 30min.)					
4	4-5				
Water (ISO 105-E01: 2013, 37°C x 4 hrs.)					

Chlorinated Water
4-5

Dycrofix Navy JHP

Wash-off residue (Liquor = 1:10)



> Fastness

CA	CO	PA	PET	PAN	WO
4	4-5				
Washing (ISO 105-C06: C25:2010, 60°C x 30min.)					
4-5	4-5				
Water (ISO 105-E01: 2013, 37°C x 4 hrs.)					

Chlorinated Water
4-5

Dycrofix Black JHP

Wash-off residue (Liquor = 1:10)



> Fastness

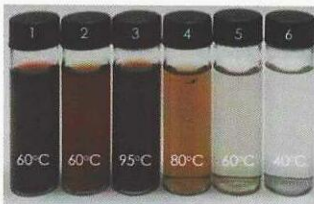
CA	CO	PA	PET	PAN	WO
4	4-5				
Washing (ISO 105-C06: C25:2010, 60°C x 30min.)					
4-5	4-5				
Water (ISO 105-E01: 2013, 37°C x 4 hrs.)					

Chlorinated Water
4-5

Case study

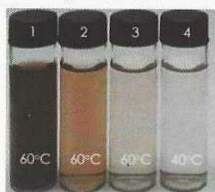
Type	Color	Dyestuffs	Dyeing depth		Chemicals		Strength Sum of K/S)
			% o.w.f.	Total	Glauber's salt	Soda ash	
Commodity		Reactive Yellow 145	1.90	9.55% (100%)	75g/l	24g/l	100.0g/l
		Reactive Red 195	1.65				
		Reactive Black	6.00				
Dycrofix JHP		Dycrofix Yellow JHP	0.90	2.43% (77.5%)	65g/l	24g/l	101.9g/l
		Dycrofix Black JHP	6.50				

Wash-off (Liquor ratio = 1:100)



Commodity

Dycrofix JHP



Color Fastness	Acetate	Cotton	Nylon	Polyester	Acrylic	Wool
Washing ISO 105-C06: C25: 2010		4				
Water ISO 105-E01: 2013		4-5				
Perspiration ISO 105-B04: 2013	Alkali	4-5				

Chlorinated water (20ppm)



4

Color Fastness	Acetate	Cotton	Nylon	Polyester	Acrylic	Wool
Washing ISO 105-C06: C25: 2010		4-5				
Water ISO 105-E01: 2013		4-5				
Perspiration ISO 105-B04: 2013	Alkali	4-5				

ISO 105-C09 (1time)



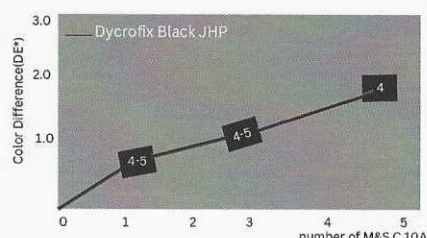
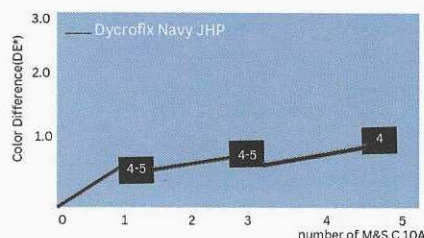
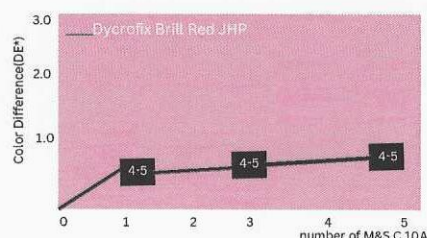
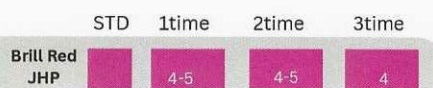
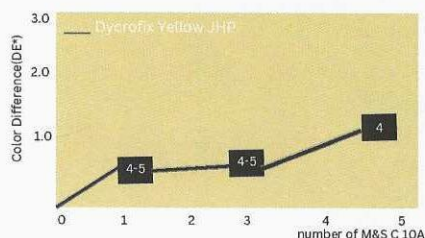
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Long Lasting colors



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 OXIDATIVE BLEACH 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.



Dischargeability

Dischargeability varies with the color depth of ground dyeing and a recipe of printing paste.



Method: Rongalite

Dischargeability varies with the depth of ground dyeing and recipe of white discharge. The discharge test was made on cotton fabrics dyed at the standard depth by the following recipes.

Rongalite	20%
Soda ash	5%
Guar Gum	1%
Oba	0.1%
TOTAL	100%

Dycrofix Yellow JHP
2.0% O.W.f



(D)

Dycrofix Brill Red JHP
3.0% O.W.f



(D)

Dycrofix Navy JHP
2.4% O.W.f



(D)

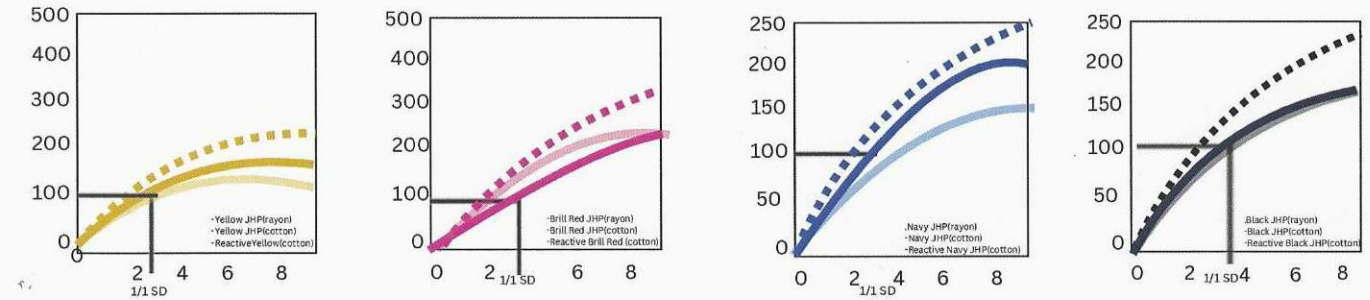
Dycrofix Black JHP
5.5% O.W.f



(D)

Build-up property

Dycrofix JHP dyes high color intensity results in lower dye and salt requirements, leading to the warm washing System.



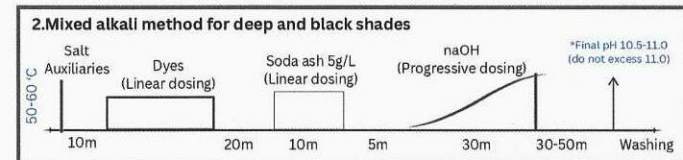
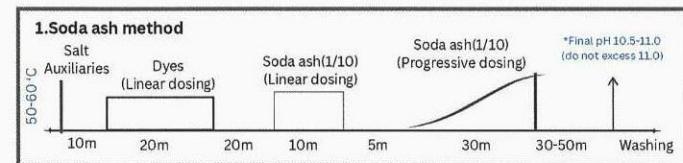
*Exhaustion dyeing -Test Fabric: CM 40's interlock, Rayon 30's/span -Method: 60°C x 60min. Liquor Ratio = 1:10 -Chemical Requirement

1. Cotton
- 1)Dycrofix Yellow JHP 2)Dycrofix Brill Red JHP 3)Dycrofix Navy JHP 4)Dycrofix Black JHP
2. Rayon
- 1)Dycrofix Yellow JHP 2)Dycrofix Brill Red JHP 3)Dycrofix Navy JHP 4)Dycrofix Black JHP

Dyeing process

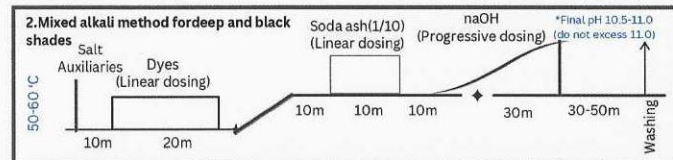
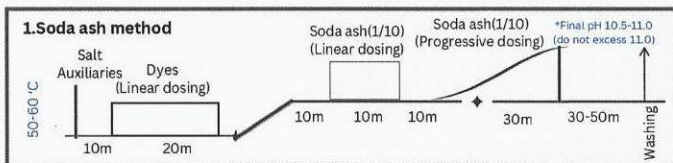
The optional dyeing temperature is 50°C-60°C, but the appropriate dyeing temperature depends on the fabric types and dyeing machines.

✓ Standard method (Isothermal)



Strong alkali mixed method ensures shorten dyeing process for increased productivity. Soda ash and strong alkali (e.g. Caustic soda) should be added separately.

✓ Standard method (Temperature rising)



Strong alkali mixed method ensures shorten dyeing process for increased productivity. Soda ash and strong alkali (e.g. Caustic soda) should be added separately.

Comment :

- For optimum color yield, less than final pH 11.0 is recommended to avoid excess hydrolysis.
- 50°C dyeing is possible for additional energy savings.
- Reproducibility is further improved at low liquid ratios dyeing
- JHP dyes have high fixing ability, thus proper alkali dosing is key factors to achieve the targeted dyeing result.

