



Intrafast CFE

reactive dyes for wool



yorkshire

Intrafast CFE dyes

Intrafast CFE dyes are a new, unique dyeing system for wool dyeing developed by Yorkshire.

Fibre reactive, they provide outstanding wet fastness as well as excellent exhaustion and high levels of fixation.

They are a compact well-balanced range specifically engineered for the production of deep, bright, fast shades on wool.

In addition, due to their exceptional compatibility and level dyeing properties they are also "tailor made" for dyeing trichromatic shades at all depths.

Intrafast CFE dyes are:

- Robust to processing variables therefore providing excellent reproducibility and maximising the concept of right first time dyeing.
- Metal free (with the exception of Bordeaux CFE -Cu complex) therefore providing minimum environmental impact.
- Extremely versatile. Easy to apply on all substrate forms; loose stock, slubbing, yarn, piece and garments.
- Economic and are therefore cost effective.

In addition they:

- Provide an attractive shade gamut to cover fashion demands.
- Produce high levels of light fastness in addition to outstanding wet fastness.
- Meet requirements of zero chrome content for Oeko-Tex Standard 100 and are therefore perfect replacements for afterchrome dyes.
- Produce bright shades where fastness requirements are higher than those attainable with Acid Milling dyes.
- Possess excellent build up properties enabling the production of bright deep shades.

Intrafast CFE dyes

Intrafast

Yellow CFE
1% & 3%

Golden Yellow CFE
1% & 3%

Scarlet CFEN 140
1% & 3%

Red CFE
1% & 3%

Deep Red CFE
2% & 4%

Bordeaux CFE
2% & 4%

Blue CFE
1% & 3%

Navy Blue CFE
2% & 3%

Deep Navy CFE
2% & 4%

Deep Black CFEN
3% & 4%



Recommended combinations

Main Trichromat for Pale to Medium Shades

Golden Yellow CFE

Red CFE

Blue CFE

Main Trichromat for Dark Shades

Golden Yellow CFE

Deep Red CFE

Navy Blue CFE

Main Trichromat for high light fastness

Golden Yellow CFE

Bordeaux CFE

Blue CFE

Greens

-For economic bottle and dark greens use Yellow CFE and Navy Blue CFE

-For medium and dark greens requiring high light fastness - use Yellow CFE & Blue CFE

-For brightest greens use Yellow CFE and Intrafast Turquoise 3G

NB Intrafast Turquoise 3G has different build up properties from CFE dyes and there must only be used for the production of bright greens



Intrafast CFE outstanding fastness

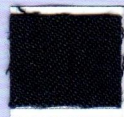
Black



4.5% Deep Black CFEN

Fastness	Wool
Washing at 50°C - ISO 105-C02	5
Water (Severe) - ISO 105-E01	5
Acid Perspiration - ISO 105-E04	5
Alkaline Perspiration - ISO 105-E04	5
Alkaline Milling(Severe) - ISO 105-E12	5
Light Fastness - ISO 105-B02	6-7

Dark Navy



2.0% Navy Blue CFE 0.55% Deep Red CFE 0.7% Golden Yellow CFE

Fastness	Wool
Washing at 50°C - ISO 105-C02	5
Water (Severe) - ISO 105-E01	5
Acid Perspiration - ISO 105-E04	5
Alkaline Perspiration - ISO 105-E04	5
Alkaline Milling(Severe) - ISO 105-E12	4-5
Light Fastness - ISO 105-B02	6

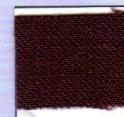
Dark Bordeaux



1.2% Deep Red CFE 1.0% Golden Yellow CFE 0.57% Navy Blue CFE

Fastness	Wool
Washing at 50°C - ISO 105-C02	5
Water (Severe) - ISO 105-E01	5
Acid Perspiration - ISO 105-E04	5
Alkaline Perspiration - ISO 105-E04	5
Alkaline Milling(Severe) - ISO 105-E12	5
Light Fastness - ISO 105-B02	4-5

Dark Brown



1.15% Golden Yellow CFE 0.96% Deep Red CFE 0.45% Navy Blue CFE

Fastness	Wool
Washing at 50°C - ISO 105-C02	5
Water (Severe) - ISO 105-E01	5
Acid Perspiration - ISO 105-E04	5
Alkaline Perspiration - ISO 105-E04	5
Alkaline Milling(Severe) - ISO 105-E12	5
Light Fastness - ISO 105-B02	4

Pre-treatment

General recommendation:

Scouring

Set bath at 40°C **Dyamul SN-MP**

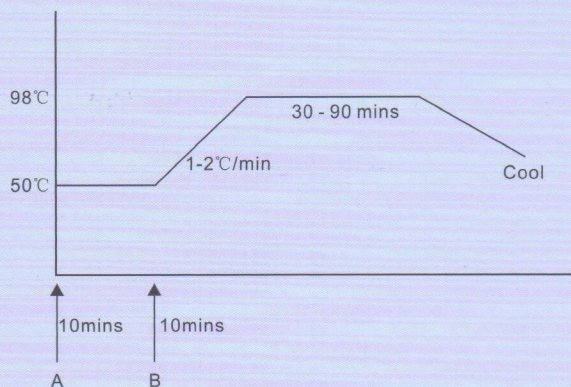
Adjust pH to 8.5 with Sodium Bicarbonate/Sodium Carbonate

Raise to 50-60°C - Run 20 mins - Rinse

Dissolving Intrafast CFE dyes

Intrafast CFE dyes should first be pasted with cold water before mixing with water at 50°C. Care should be taken not to boil the dyestuffs before adding them to the dye bath. The prepared dyestuff should be added to the dyebath through a sieve.

Dyeing method



A-Intratex CWR

Sodium Acetate }
Acetic Acid } or Formic Acid

Glaubers' Salt (for pale shades below 1% total dye on weight of fabric).

B -X% dye

General dyeing procedure

Set bath at 50°C with 1.5-5.0% **Intratex CWR**

(greater amount for dark shades)

Add 1cc/l Sodium Acetate, pH 4.5 with Acetic Acid, 10-5g/l Glaubers' Salt (for shades below 1% depth)

For dark shades (above 5% total dye on fibre) and Blacks, a pH of 3.5 -4.0 is recommended using Formic Acid.

Run 10 mins

Add Dye -Run 10 mins

Raise to 98°C 1-2°C/min

Run at 98°C for 30 mins (Pale)

60 mins (Medium)

90 mins (Dark)

Cool to 80°C - Sample / Drop Bath

Aftertreat in a fresh bath with:

1cc/l Dyamul SN-MP

pH 8.5 Ammonia

Raise to 80°C - Run 15 mins

Drop - Rinse / Neutralise.

N.B. For dyeings below 1% total dye on weight of fibre, aftertreatments are not necessary.

Shading Additions

If shading additions are necessary they can be made without impairing levelness, by cooling the bath to 70°C.

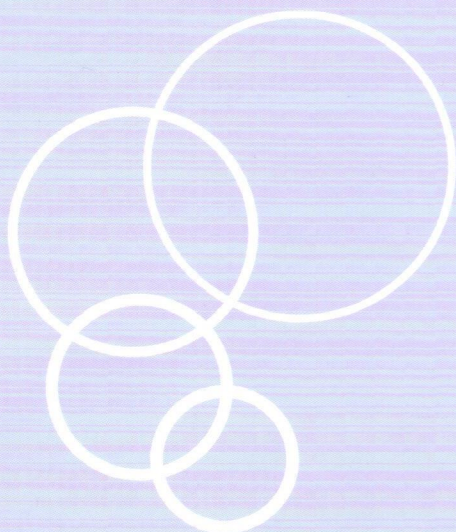
Add the diluted dyestuff -Run 10 minutes

Raise to 98°C at 1.5°C/min - Run 20 minutes at 98°C - Cool to 80°C - Sample.

Auxiliaries & additional recommendations

Intratex CWR is a levelling/migration agent specially developed for the reactive dyeing of wool. It enables the achievement of high yields by reducing dye loss due to hydrolysis. It promotes and greatly increases both exhaustion and fixation providing optimum dyeing performance.

Dyamul SN-MP is a high performance non-ionic detergent incorporating a sequestrant. It is strongly recommended on wool for both pre-treatments (scouring) and the washing off of reactive dyes.



Fastness

Depth of shade		1%			1%			
Intrafast		Yellow CFE			Golden Yellow CFE			
Light Fastness Xenotest ISO 105-B02	1/3	6			6-7			
	1/1	6-7			7			
	2/1	7			7			
		SC	WO	C	SC	WO	C	
Washing(40°) ISO 105-E01		5	5	5	5	5	5	
Alkaline Perspiration ISO 105-E04	Untreated	5	5	5	5	5	5	
	Hercosett	5	5	5	5	5	5	
	Chlorinated	5	5	5	5	5	5	
Washing (50°C) M & S C4A	Untreated	5	5	5	5	5	5	
	Hercosett	5	5	4-5	5	5	4-5	
	Chlorinated	5	5	5	5	5	5	
Acid Perspiration ISO 105-E04		5	5	5	5	5	5	
Water (Severe) ISO 105-E01		5	5	5	5	5	5	
Cross Dyeing ISO 105-X07		5	3-4Y	5	5	4-5	5	
Alkaling Milling Severe ISO 105-E12		5	4-5	5	5	4-5	5	
Dry Cleaning ISO 10-D01		5	-	-	5	-	-	
Hot Water ISO 105-E08		5	5	5	5	5	5	
Potting ISO 105-E09		5	3-4	4	5	3-4	4	
Rubbing ISO 105-B02	Dry	5			5			
	Wet	4-5			4-5			
Effect of Metals ISO 105-202	Cu	3-4			4			
	Fe	2-3			3-4			
Solubility 60°C/25°C		> 100g/l			> 100g/l			

Abbreviations: SC - shade change WO - stain on wool

		1%			1%			2%			2%					1%			2%			2%			2%			
		Searlet CFEN 140			Red CFE			Deep Red CFE			Bordeaux CFE					Blue CFE			Navy Blue CFE			Deep Navy CFE			Deep Black CFEN			
		4			4			3			6					6			3-4			4			-			
		5			5			4			7					6			4-5			5-6			6			
		6			6-7			6			7					7			6-7			6-7			6-7			
		SC	WO	C	SC	WO	C	SC	WO	C	SC	WO	C			SC	WO	C	SC	WO	C	SC	WO	C	SC	WO	C	
		5	5	5	5	5	5	5	5	5	5	5	5			5	5	5	5	5	5	5	5	5	5	5	5	
		5	5	5	5	5	5	5	5	5	5	4-5	4-5			5	5	5	5	5	5	5	5	5	5	5	5	
		5	5	5	5	5	5	5	5	5	5	4-5	5			5	5	5	5	5	5	5	5	5	5	5	5	
		5	5	5	5	5	5	5	5	5	4-5	4-5	4-5			5	5	5	5	5	5	5	4-5	5	5	5	5	
		5	5	5	5	5	5	5	5	5	5	5	5			5	5	5	5	5	5	5	5	5	5	5	5	
		5	5	4-5	5	5	4-5	5	5	4-5	5	4-5	5			5	5	5	5	5	5	5	5	5	5	5	5	
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		5	4-5	5	5	4-5	5	5	4-5	5	4-5D	1-2	5			4-5D	4-5	5	5	4	5	4-5D	4B	5	4-5	4	5	
		5	5	5	4-5	4-5	5	5	5	5	5	4	4-5			5	4	4-5	5	5	3-4	5	5	5	5	4-5	5	
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		4-5B	3-4	4-5	4-5	4-5	5	5	4	5	4-5	2	5			4-5	4	5	4-5	2-3	4-5	5	3	5	5	3	5	
		5			5			5			5					5			4-5			5			4-5			
		5			4-5			5			4-5					4-5			4			4-5			4			
		4-5B			3-4			4B			4-5					4-5			4-5			4-5			5			
		4-5B			4B			4B			5					4			4-5			4-5			5			
		>80g/l			>100g/l			>100g/l			>80g/l					>100g/l			>100g/l			>100g/l			>100g/l			
C - stain on cotton										D - duller			Y - yellower			B - bluer												