



ITOFIX VMS
Reactive Dyes for Deep Shades

MAGNACOLOURS[®]
IMAGINATION INK[®]



ITOFIX VMS dyes are specifically for dyeing those troublesome deep shades where build up properties of conventional dyes is insufficient. Our ITOFIX VMS dyes are poly functional thus offering outstanding build up properties with high tinctorial strength giving improved reproducibility in the deep shade area and outstanding wash off properties coupled to excellent wet fastnesses. In these times of ever increasing environmental concerns the ITOFIX VMS dyes are metal free and have low effluent impact due to their very high fixation even in very deep shades. These dyes are also suitable for dyeing by cold pad batch or continuous methods.

FASTNESS TEST METHODS

Light Fastness	ISO 105-B02
Wash Fastness	ISO 105-C02
Perspiration Fastness	ISO 105-E02
Water Fastness	ISO 105-E01

SYMBOLS USED IN FASTNESS COLUMNS

C	Staining on cotton
N	Staining on nylon
W	Staining on wool

ITOFIX VMS DYEING METHOD

Exhaust

Recipe: x% Dye
0.5g/l ITOQUEST LJ3-12
y g/l Salt
z g/l Alkali

Method: Heat to 40°C.
Add chemicals and salt, run for 10 minutes.
Heat to 60°C.
Add dyes, run for 30 minutes.
Add alkali over 30 minutes. (by portions or progressive dosing)
Run for 40 to 60 minutes at 60°C.
Drop liquor and rinse, acid rinse, soap at 100°C.

Cold Pad Batch

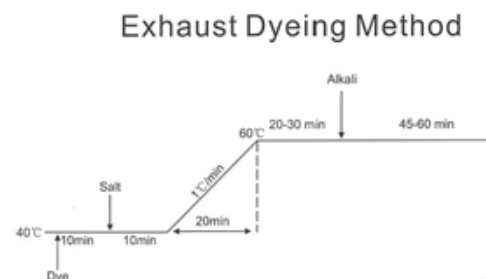
Recipe: x g/l Dye
50g/l ITOPREP MSS
x/5+8 cc/l Caustic Soda 70TW (x is dye value in g/l)
0.2g/l Itowet LJ10

Method: Make dye solution up to 4/5 total volume.
Make chemical solution up to 1/5 total volume.
Mix dye and chemical solutions and pad immediately.
Batch long test for 16-24 hours (Quick test 30 mins at 60°C).
Rinse, acid rinse, soap at 100°C.



Typical Example of High Build Up: BROWN

	% Dye		% Dye
Yellow 145 150%	3.1	Itofix Yellow VMS3R	1.6
Red 195 150%	1.8	Itofix Deep Red VMSB	1.1
Blue 222 150%	2.7	Itofix Navy VMSG	1.7
Total	7.6%	Total	4.4%

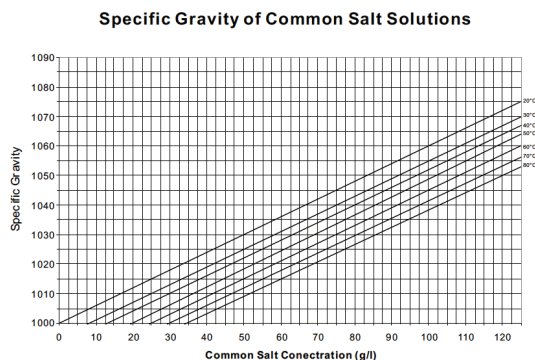
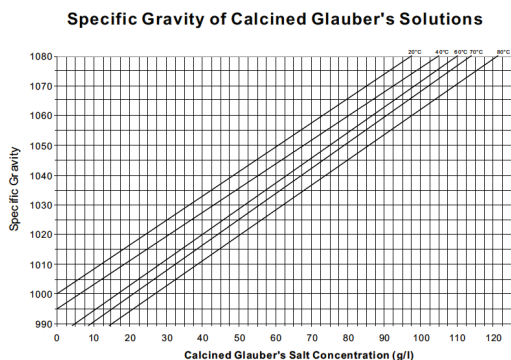


ITOFIX	Dyed at 2%, Black at 4%	Fastness @ 3%										
		Sol	Light	Wash 50°C			Alk Persp			Water		
		80°C	1/1	C	N	W	C	N	W	C	N	W
Yellow VMS3R		100	4/5	4/5	4/5	5	5	5	4/5	4/5	4/5	4/5
Orange VMS3R		100	4	4/5	4/5	4/5	5	5	4/5	4/5	4/5	4/5
Red VMS2B		100	4	4/5	4/5	4/5	4	4	4/5	4/5	4/5	4/5
Deep Red VMSB		100	4	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5
Royal Blue VMSFR		100	6	5	4/5	5	4/5	4/5	4/5	4/5	4/5	4/5
Dark Blue VMSG		100	4/5	5	5	5	4/5	5	4/5	4	4	4/5
Navy VMSG		100	4	4/5	4/5	4/5	4/5	5	4/5	4/5	4/5	4/5
Black VMSNN NEW		100	4/5	4/5	4	4/5	4/5	4	4/5	4	4/5	4/5
Black VMSG		100	4	4	4	4	4/5	4/5	4/5	4	4/5	4/5
Black VMSR		100	4	4	4	4	4/5	4	4/5	4	4	4/5



Salt and Alkali Table

% Dyestuff	Glaubers Salt	Soda Ash	OR	Soda Ash + Caustic 70tw
<0.5	30	8		-
0.501 - 1	40	10		5+0.5
1.001 - 2	50	15		5+1.0
2.001 - 3	60	20		5+1.25
3.001 - 4	80	20		5+1.5
4.001 - 5	90	-		5+2.0
>5	100	-		5+2.5



REACTIVE DYE RANGES



Application Method	Best Quality	Also Suitable	Cheapest Recipe
EXHAUST			
Warm 50-60°C	ITOFIX VM (pale to medium shades)	ITOFIX VSRR (pale shades)	ITOFIX VS (med-full)
	ITOFIX VMHLF (highest light fastness)	ITOFIX VSRGB (medium to full)	
		ITOFIX VMS (very full shades)	
Hot 80-130°C	ITOFIX CTSNR (pale to full shades)	ITOFIX CT (pale to full shades)	
	ITOREACT (pale to medium shades)		
Cold Pad Batch	ITOFIX VM (pale to medium shades)	ITOFIX VSRR (pale shades)	ITOFIX VS (med-full)
	ITOFIX VMHLF (highest light fastness)	ITOFIX VSRGB (medium to full)	
		ITOFIX VMS (very full shades)	
Pad-Dry-Pad-Steam	ITOFIX VMHLF (highest light fastness)	ITOFIX VSRR (pale shades)	ITOFIX VS
	ITOFIX P (medium to full shades)	ITOFIX VSRGB (medium to full)	
		ITOFIX VMS (very full shades)	
Pad - Dry - Steam	ITOFIX P (pale to full shades)	ITOFIX VSRR (pale shades)	ITOFIX VS
		ITOFIX VSRGB (medium to full)	
		ITOFIX VMS (very full shades)	
Pad - Steam		ITOFIX VM (pale to medium)	ITOFIX VS
Pad-Dry-Thermofix	ITOFIX P (pale to full shades)	ITOFIX VSRGB (medium to full)	ITOFIX VS
	ITOFIX VMHLF (highest light fastness)	ITOFIX VMS (very full shades)	
E Control	ITOFIX P (pale to full shades)	ITOFIX VSRR (pale shades)	ITOFIX VS
	ITOFIX VMHLF (highest light fastness)	ITOFIX VSRGB (medium to full)	
Printing	ITOFIX P (pale to full shades)		ITOFIX VS

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