



ITOFIX VS Reactive Dyes

MAGNACOLOURS[®]
IMAGINATION INK[®]

ITOFIX VS

Reactive Dyes



ITOFIX VS dyes are a range of dyes based on vinyl sulphone chemistry. Suitable for many dyeing methods the ITOFIX VS series is especially suited for cold pad batch and continuous applications.

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 VS 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 50°C.
Add dyes, run for 30 minutes.
Add alkali over 30 minutes.
(by portions or progressive dosing).
Run for 40 to 60 minutes at 50°C.
Drop liquor and rinse, acid rinse, soap at 100°C.

Cold Pad Batch

Recipe:

x g/l Dye
50g/l ITOBUFFER CPB
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.

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Salt and Alkali Table (Based on 100% strength dyestuffs)

% Dyestuff	Glaubers Salt	Soda Ash	OR	Soda Ash + Caustic 70tw
<0.3	10	10		-
>0.3 - 0.6	20	10		-
>0.6 - 1.0	30	15		5+1.0
>1.0 - 1.5	40	15		5+1.5
>1.5 - 3	50	20		5+2.0
>3 - 5	80	-		5+3.5
>5	100	-		5+5.0

ITOFIX	Fastness Properties at 3%											
	Sol	Light	Wash 50°C			Alk Persp			Water			
	80°C	1/1	C	N	W	C	N	W	C	N	W	
Dyed at 1%, Navy 2% and Black at 4%												
Br Yellow VS8G	80	3	4/5	4/5	4/5	4/5	4/5	4/5	4	4	4/5	
Yellow VS2GL 150% Yellow 037	100	5	4/5	4/5	4/5	4/5	4/5	4/5	4	4	4/5	
Yellow VSGR 150% Yellow 015	100	4	4/5	4/5	4/5	4/5	4/5	4/5	3/4	4/5	4/5	
Yellow VSRNL 150% Orange 107	100	5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	
Br Orange VS2R Orange 122	100	5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	
Br Orange VS3R 110% Orange 016	100	5	4/5	4	4/5	4/5	4	4/5	4/5	4	4/5	
Red VSRB 133% Red 198	100	4	4/5	4	4/5	4/5	4	4/5	4/5	4	4/5	
Red VSF3B Red 180	100	4	4	4	4/5	4/5	4/5	4/5	4	4	4	
Br Blue VSR 150% Blue 019	100	5	4/5	4	4/5	4/5	4	4/5	4	3	4	
Blue VSBB 133% Blue 220	100	5/6	4/5	4/5	4/5	4	4/5	4/5	4/5	4	4/5	
Turquoise VSG 225% Blue 021	100	5	4	4	4/5	3/4	4/5	4/5	4	4	4/5	
Navy VSGG 150% Blue 203	100	4	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4	4/5	
Black VSB 150% Black 005	130	4	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4	4/5	
Black VSN 150% Black Mix	150	5	4/5	4/5	4/5	4/5	4/5	4/5	4	4	4/5	

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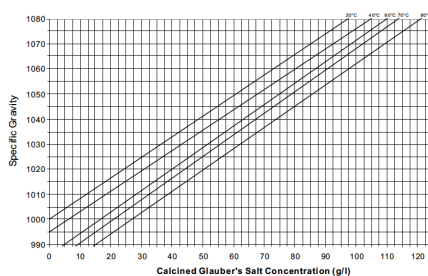


Notes

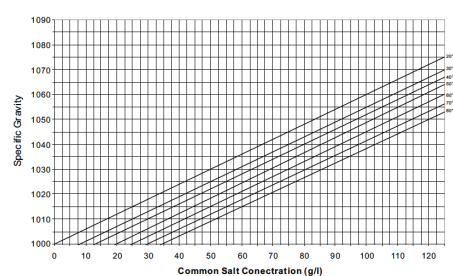
*Itofix Turquoise VSG available as 266%, Itofix Black VSB available as 133%

Itofix Turquoise VSG 225% should be dyed at 80°C, with a maximum of 50g/l salt.

Specific Gravity of Calcined Glauber's Solutions



Specific Gravity of Common Salt Solutions



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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