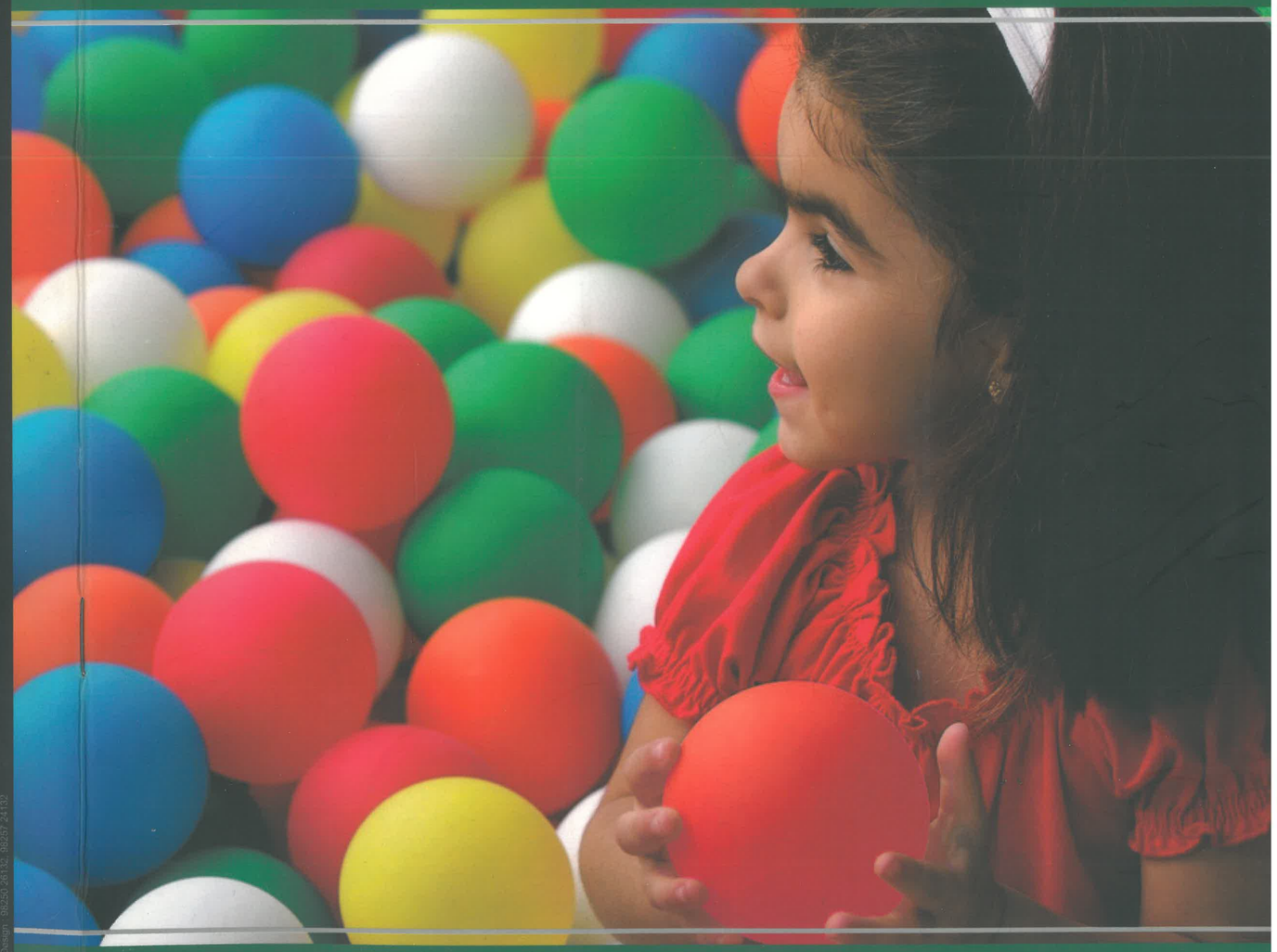
Bodal Chemicals Ltd.

QUALITY COLOURS FOR YOUR SATISFACTION

BODACTIVE CF RANGE
REACTIVE DYES



"Quality, The smart choice"

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Bodal Chemicals Ltd.

BODACTIVE CF RANGE

BODACTIVE CF RANGE	Exhaust Dyeing		General Properties								Fastness Properties																					
			Solubility g/l			Fixation Temp. (Exhaust Dyeing)	Effect of Metals		Suitability for process		Discharge-ability	Light			Washing						Perspiration				Chlorinated Water	Rubbing		Mercerising		Hot Pressing	
												ISO B02			CO3		CO4		C4A		EO4 Acidic		EO4 Alkaline							Dry	
	1.0%	3.0%	30°C Water	60°C Water	60°C 50 g/l Salt		Copper	Iorn	Exhaust	CPB		1/25	1/1	2/1	Effect	Stain	Effect	Stain	Effect	Stain	Effect	Stain	Effect	Stain	20mg/l Cl2	Dry	Wet	Effect	Stain	Immediately	After 4 Hours
BODACTIVE YELLOW CF-3G			100	120	50	60°C	4-5	4-5	S	NS	ND	4-5	5	5-6	4-5	4-5	4-5	4-5	4-5	4-5	4	4-5	4	4-5	3	4-5	4	4R	4-5	4-5	4-5
BODACTIVE YELLOW CF-RGB			120	160	80	60°C	4	4-5	S	S	ND	5	5-6	6	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4R	3-4	4RD	4-5R
BODACTIVE YELLOW CF-RSFL			120	160	80	60°C	4 BLD	4-5	S	S	ND	5-6	6	6-7	4-5	4-5	4	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4R	3-4	4RD	4-5R
BODACTIVE YELLOW CF-RSF			120	160	80	60°C	4 BLD	4-5	S	S	ND	5-6	6	6-7	4-5	4-5	4	4	4-5	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4R	3-4	4RD	4-5R
BODACTIVE YELLOW CF-S3R			100	120	80	60°C	4	4-5	S	S	ND	5	5-6	6	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4R	3-4	4RD	4-5
BODACTIVE YELLOW BROWN CF-3R			100	120	80	60°C	4	4	S	S	D	5	5	5-6	4	4-5	4	4-5	4	4-5	4	4-5	4	4-5	3-4	4-5	4	4	3-4	4R	4
BODACTIVE ORANGE CF-W3R			120	140	80	60°C	4	4	S	S	D	5	5	5-6	4	4-5	4	4-5	4	4-5	4	4-5	4	4-5	3-4	4-5	4	4	3-4	4R	4
BODACTIVE ORANGE CF-R			70	80	20	60°C	4	4	S	NS	ND	3	4	4-5	4-5	4-5	4-5	4	4	4	4	4	4	4-5	3-4	4-5	3-4	3-4	4-5	3R	3-4R
BODACTIVE SCARLET CF-R			80	100	50	60°C	4-5	4-5	S	S	D	5	5-6	5-6	4-5	4-5	4	4	4	4	4	4-5	4-5	4-5	4	4	4	3-4	4	G	4-5
BODACTIVE RED CF-G			100	100	50	60°C	4	4	S	S	ND	4	4-5	4-5	4-5	4-5	4	4	4	4	4	3-4	4	4	4-5	4	4-5	3-4	3-4	4-5	3R	3-4R
BODACTIVE RED CF-2G			100	100	60	60°C	4	4	S	S	ND	3-4	4	4-5	4-5	4-5	4	4	4	4	4	3-4	4	4	4-5	4	4	3-4	4	4-5	4	3-4R
BODACTIVE RED CF-RGB			100	100	60	60°C	4 B	3-4	S	S	ND	3-4	4	4	4	4	4-5	4-5	4	4-5	4	4-5	4	4-5	3	4	4	3-4	4	4BL	4
BODACTIVE RED CF-RSF			100	150	80	60°C	4-BL	4B	S	S	ND	4	4	4-5	4	4	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	3	4-5	4	4	4	4-5	4-5

Bodal Chemicals Ltd.

BODACTIVE CF RANGE

BODACTIVE CF RANGE	Exhaust Dyeing		General Properties								Fastness Properties																							
			Solubility g/l				Effect of Metals		Suitability for process			Light			Washing						Perspiration				Chlorinated Water	Rubbing		Mercerising		Hot Pressing	
																					EO4										Dry	
												ISO B02			CO3		CO4		C4A		Acidic		Alkaline								Effect	
	1.0%	3.0%	30°C Water	60°C Water	60°C 50 g/l Salt	Fixation Temp. (Exhaust Dyeing)	Copper	Iorn	Exhaust	CPB	Dischargeability	1/25	1/1	2/1	Effect	Stain	Effect	Stain	Effect	Stain	Effect	Stain	Effect	Stain	20mg/l Cl2	Dry	Wet	Effect	Stain	Immediately	After 4 Hours
BODACTIVE RED CF-WB 150%			100	150	100	60°C	3 BL	4	S	S	ND	4	4-5	4-5	4	4	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	3	4	3-4	4	3-4	4	4-5
BODACTIVE RED CF-3BS			100	100	60	60°C	4-5 B	4 B	S	S	ND	4	4-5	4-5	5	5	5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	2-3	4-5	4	4	4	4-5	4-5
BODACTIVE RED CF-K3BS			200	200	100	60°C	2-3	4	S	5	ND	3-4	4	4	4	4-5	4	4	4-5	4-5	4	4	4	4-5	3-4	4	3-4	4	3-4	3BL	4BL
BODACTIVE RED CF-RSFL			200	200	100	60°C	2-3 BL	4-5	S	S	ND	3-4	4	4	4	4-5	4	4	4-5	4-5	3-4	4	4	4-5	4	4-5	3-4	4-5	3-4	3BLD	4-5BL
BODACTIVE RED CF-S2B			120	150	100	60°C	3 BL	4	S	S	ND	4	4-5	4-5	4	4-5	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	2-3	4	3-4	4	3-4	4	4-5
BODACTIVE DEEP RED CF-2B			120	150	100	60°C	3 BL	4	5	S	ND	4	4-5	4-5	4	4-5	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	3	4	3-4	4	3-4	4	4-5
BODACTIVE RED CF-6B			50	50	20	60°C	4 B	3-4	S	NS	ND	3	4	4	4	4	4	3-4	4	3-4	3-4	3-4	4	3-4	3	4	3-4	4	3-4	4BL	4
BODACTIVE TURQUOISE CF-G			80	100	80	60°C/80°C	4 R	4 G	S	S	ND	4	5	6	4-5	4	4	3	4-5	3	4-5	4-5	4-5	4-5	4	4	3-4	4	3	4-5	4-5
BODACTIVE BRILL. BLUE CF-R			100	100	50	60°C	4-5	4-5	S	NS	D	6	6-7	7	5	5	4	3-4	4	4	4-5	4-5	4-5	4-5	4	4-5	4	3R	3	3-4R	4
BODACTIVE BLUE CF-2B			100	100	50	60°C	4-5	4-5	S	S	D	5	5-6	6	4-5	5	4-5	4-5	4-5	4-5	G	5	4-5	5	4	4-5	4	4R	4-5	4-5	4-5
BODACTIVE BLUE CF-RSFL			80	100	50	60°C	4 G	4 G	S	S	ND	4-5	5-6	6	4-5	3	4	3	4-5	2-3	4-5	4-5	4-5	4-5	3	4-5	4	3R	4	4-5	4-5
BODACTIVE BLUE CF-RSF			80	80	50	60°C	4-5	4-5	S	S	D	4	4-5	5	4-5	4-5	4-5	4-5	4-5	4-5	3-4	4-5	4-5	4-5	3	4	3-4	4	4	4-5	4-5
BODACTIVE BLUE CF-B			100	100	50	60°C	2	4 G	S	S	D	3-4	4	4-5	4-5	5	4	4-5	4-5	4-5	5	4	4-5	4	3-4	4-5	3-4	4R	3	4R	5

Bodal Chemicals Ltd.

BODACTIVE CF RANGE

BODACTIVE CF RANGE

BODACTIVE CF RANGE	Exhaust Dyeing		General Properties: Solubility g/l			Fixation Temp. (Exhaust Dyeing)	Effect of Metals		Suitability for process	
	1.0%	3.0%	30°C Water	60°C Water	60°C 50 g/l Salt		Copper	Iorn	Exhaust	CPB
BODACTIVE BLUE CF-2G			100	120	100	60°C	2 R	4	S	S
BODACTIVE NAVY CF-SG			100	120	100	60°C	2 R	4-5	S	S
BODACTIVE NAVY BLUE CF-2G			100	120	100	60°C	2 R	4	S	S
BODACTIVE DARK BLUE CF-WR			100	120	60	60°C	2 R	4	S	S
BODACTIVE NAVY CF-B			200	200	100	60°C	3 R	4	S	S
BODACTIVE BLACK CF-B			200	200	100	60°C	3 R	4	S	S
BODACTIVE BLACK CF-NC			100	100	50	60°C	3-4	4	S	S
BODACTIVE SUPRA BLACK BNC SPECIAL			200	200	100	60°C	3-4	4	S	S
BODACTIVE JET BLACK BNC SPECIAL			200	200	100	60°C	3-4	4	S	S

BODACTIVE CF RANGE	Dischargeability	Fastness Properties: Light ISO B02			Washing C03		Washing C04		Washing C4A		Perspiration E04 Acidic		Perspiration E04 Alkaline		Chlorinated Water	Rubbing		Mercerising		Hot Pressing Dry Effect	
		1/25	1/1	2/1	Effect	Stain	Effect	Stain	Effect	Stain	Effect	Stain	Effect	Stain	20mg/l Cl2	Dry	Wet	Effect	Stain	Immed iately	After 4 Hours
BODACTIVE BLUE CF-2G	D	4	4-5	4-5	5	4-5	4-5	4	4-5	4-5	4-5	4	5	5	G	4	3-4	3-4	3-4	4-5	4-5
BODACTIVE NAVY CF-SG	D	3	3-4	4	4	4-5	4	3-4	4-5	4-5	4-5	4-5	4-5	4-5	3-4	4-5	3-4	4-5	3-4	4-5	4-5
BODACTIVE NAVY BLUE CF-2G	D	3	3-4	4	4	4-5	4	3-4	4-5	4-5	4-5	4-5	4-5	4-5	3-4	4-5R	3-4	4-5R	3-4	4-5R	4-5
BODACTIVE DARK BLUE CF-WR	D	4	4-5	4-5	4-5	4-5	4-5	4	4-5	4	4	4	4-5	4	3-4	4	3-4	3-4	3-4	4-5	4-5
BODACTIVE NAVY CF-B	D	-	3-4	4-5	4-5	5	4	4-5	4-5	5	5	4	4-5	4	2	4-5	3-4	4	2-3	4R	5
BODACTIVE BLACK CF-B	D	-	3-4	4-5	4-5	5	4	4-5	4-5	5	5	4	4-5	4	2	4-5	3-4	4	3	4R	4-5
BODACTIVE BLACK CF-NC	D	-	3-4	5	4-5	5	4	4-5	4-5	4-5	4-5	4	4-5	4	2-3	4-5	3-4	4	3	43	4-5
BODACTIVE SUPRA BLACK BNC SPECIAL	D	-	3-4	4-5	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	2-3	4	3-4	4	3	4	5
BODACTIVE JET BLACK BNC SPECIAL	D	-	3-4	4-5	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	2-3	4	3-4	4	3	4	5

Black Shade are in 4.0% & 8.0%

BODACTIVE CF DYES

Excellent Range	**Exhaust dyeing** **Semi continuous Dyeing**
High Productivity	Low energy consumption. Shorter dyeing cycle. Excellent fixation profile. High solubility. Stable to acid hydrolysis.
Excellent Reproducibility	High exhaustion profile. Robust to process variables exhaust & semi continuos dyeing.
Excellent Level Dyeing	Low rate of strike. Superior migration properties.
Eco friendly	High fixation leaves less colour residue in effluent. Easy wash off saves valuable water. Warm dyeing at 60°C consumes less energy.
Excellent Compatibility range.	Uniform reproducibility & reliable fastness. Excellent for exhaust dyeing with versatile dyeing process. Very good for semi continues pad-patch method.

Quantity of Glauber's Salt

% Shade	Glauber's Salt Anhyd. (gpl)
Upto 0.10	10
0.11-0.5	20
051-1.0	30
1.01-2.0	50
2.01-4.00	60
Above 4.00	70

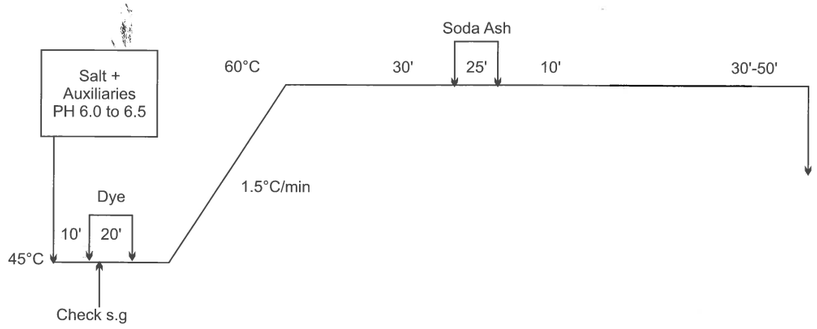
Quantity of Alkali

% Shade System	Soda Ash (gpl)	Mixed Alkali System	
		Caustic (70° Tw) ml/l	Soda Ash (gpl)
<0.5	10.0	0.5	5.0
0.5-1.0	15.0	0.5-1.0	5.0
1.0-3.0	20.0	1.0-1.50	5.0
3.0-5.0	20.0	1.50-2.0	5.0
>5.0	20.0	2.0	5.0

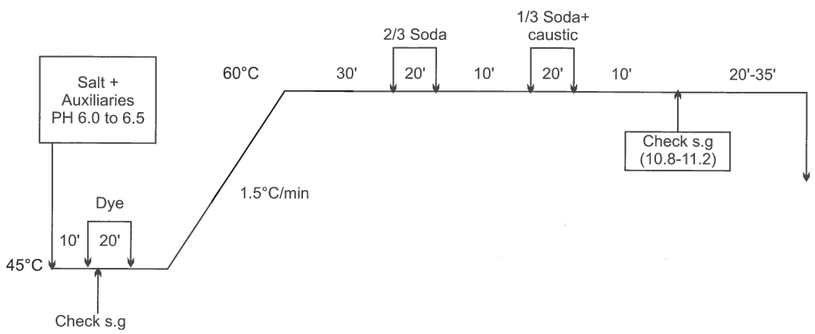
Bodal Chemicals Ltd.
BODACTIVE CF DYES

EXHAUST DYEING

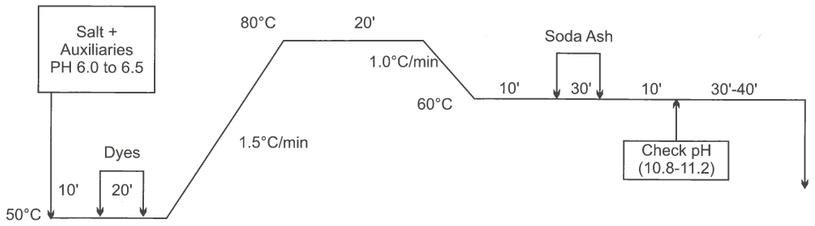
Salt at start standard Method



Mixed Alkali Method



Migration Method



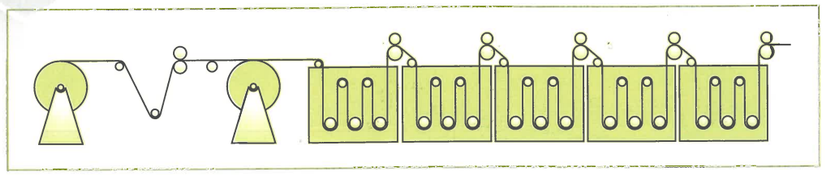
Key to Abbreviations

The following abbreviations have been used:

BL	=	bluer	**D**	=	dis-chargable
D	=	duller	**ND**	=	not dis-chargable
G	=	greener	**S**	=	suitable
R	=	Redder	**LS**	=	less suitable
W	=	weaker	**NS**	=	not suitable

Semi-continuous dyeing

Cold pad batch dyeing process



Process Sequence

Padding with mixture of dye, urea, wetting agent, caustic soda & Sodium silicate

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Batching for 16-20 hrs

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Cold Rinse

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Warm Wash - 60°C

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Neutralisation - 40°C

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Soaping I-95°C

↓

Soaping II-95°C

↓

Hot Wash - 80°C

↓

Neutralisation - 40°C

↓

Cold Rinse

↓

Dry

Sodium Silicate, Alkali & Urea Requirement

Dye g/l	Upto 20 G/L	Upto 30 G/L	Upto 40 G/L	Upto 50 G/L	Upto 60 G/L	Upto 70-100 G/L
Urea g/l	50	50	50	50	50	50
Caustic soda (32.5%) ml/lit/72°T.W.	15	20	20	25	25	30
Sodium Silicate (100-106°T.W) cc/lit.	65	65	65	65	65	65

Light Shade.

- » Bodactive Yellow CF-RSFL
- » Bodactive Red CF-RSFL / Bodactive Brill.Red CF-G
- » Bodactive Blue CF-RSFL.

- » Bodactive Yellow CF-RSFL
- » Bodactive Red CF-K3BS / Bodactive Scarlet CF-R
- » Bodactive Blue CF-RSF.

Medium Shade.

- » Bodactive Yellow CF-RSFL
- » Bodactive Red RSFL / Bodactive Red CF-S2B
- » Bodactive Navy CF-SG.

Dark Shade.

- » Bodactive Yellow-S3R
- » Bodactive Red CF-S2B / Bodactive Red CF-K3BS
- » Bodactive Navy CF-B / Bodactive Black B 150 %. / Bodactive Navy CF-RGB

High Light Fastness.

- » Bodactive Yellow CF-RSFL
- » Bodactive Red CF-RSFL/ Bodactive Scarlet CF-R / Bodactive Red CF-G
- » Bodactive Blue CF-RSFL.

Pad-Batch.

- » Bodactive Yellow-S3R
- » Bodactive Red CF-RSFL / Bodactive CF-WB-150%
- » Bodactive Navy CF-RGB / Bodactive Navy CF-B / Bodactive Black B 150 %.

Jet Black.

- » Bodactive Supra Black BNC Special.
- » Bodactive Jet Black BNC Special..