



OPTIMAKIMYA
OPTIMUM CHEMISTRY



REAZOL DYES

your reliable global business partner
with optimum solutions.



Ø **ZDHC**

OEKO-TEX®
INSPIRING CONFIDENCE
ECO PASSPORT 

M - X DYES

 REAZOL M-X TYPE SERIES	CI No.	Shade 2.0% o.w.f.	Solubility in gpl at 30 °C	Affinity	Reactivity	Fixation Temperature °C	Process Suitability				Dischargeability	Other Fastness		Light Fastness AATCC 16E			Post Fastness Properties			
							Exhaust	Cold Pad Batch	Printing	Continuous		Washing Fastness ISO 105 C04	Rubbing ISO 105/X12 Dry / Wet	0.1%	1.0%	2.0%	Water ISO 105 E01	Chlorinated Pool Water AATCC 162.2002	Hydrogen Peroxide	Perspiration ISO 105 E04 Acid / Alkali
Brill Yellow MX-8G	Yellow 86		80	M	H	40	S	NS	S	LS	Moderate	4-5	4	3-4	3-4	4	4	3	3-4	4-5
Yellow MX-4G	Yellow 22		65	M	M	40	S	NS	S	LS	Good	4-5	4-5	3-4	4	4	5	3	3-4	4-5
Golden Yellow MX-R	Yellow 44		150	M	M	40	S	LS	S	LS	Poor	4-5	4	3-4	3-4	4	4-5	3-4	4	4
Golden Yellow MX-3R	Orange 86		120	H	M	40	S	LS	S	LS	Moderate	4-5	4	4	4-5	4-5	4-5	3-4	4	4-5
Yellow MX-4R	Orange 14		150	M	M	40	S	LS	S	LS	Poor	4	4	3-4	4	4	4-5	3	3	4
Brill Orange MX-2R	Orange 4		65	M	M	40	S	LS	S	LS	Poor	4	4	3	3-4	3-4	4-5	3	3-4	4
Brill Red MX-5B	Red 2		80	H	M	40	S	LS	S	LS	Poor	4	3-4	3	3-4	3-4	4-5	3	3	4
Bril Red MX-8B	Red 11		70	H	M	40	S	NS	S	LS	Poor	4-5	3-4	3	3-4	3-4	4-5	2-3	3-4	3
Brill Magenta MX-B	Violet 13		70	H	M	40	S	NS	S	LS	Moderate	4	4	3-4	4	4-5	4	2-3	3	4-5
Brill Violet MX-4R	Violet 14		70	H	M	40	S	NS	S	LS	Moderate	4	4-5	3	3-4	3-4	4-5	4	3-4	4-5
Brill Blue MX-R	Blue 4		80	H	M	40	S	LS	S	LS	Poor	4-5	4-5	3-4	4	4	4-5	3-4	3-4	4-5
Blue MX-2R	Blue 81		70	H	M	40	S	LS	S	LS	Poor	4	4	3	3	3-4	4-5	3-4	3-4	4
Navy Blue MX-3R	Blue 9		70	H	M	40	S	LS	S	LS	Moderate	4-5	4-5	2-3	3	3-4	4-5	4	4	4

H - High | M - Medium | L - Low | HS - High Suitable | S - Suitable | LS - Low Suitable | NS - Not Suitable

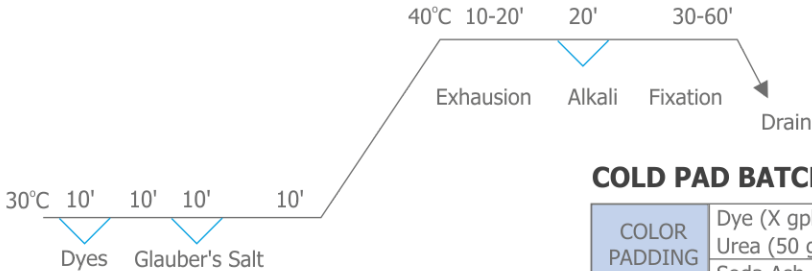
DYEING METHOD : EXHAUST DYEING

M:L Ratio - 1:10 | SALT & ALKALI REQUIREMENT

DEPTH OF SHADE	SODIUM CHLORIDE OR GLAUBER SALT		SODA ASH	FIXATION (MINUTES)
	UNMERC. COTTON/KNITS	VISCOSE OR MERC. COTTON		
Upto 0.10%	10	7	10	30
0.11-0.30%	20	10	10	30
0.31%-0.50%	30	20	15	30
0.51%-1.00%	40	30	15	45
1.01%-2.00%	50	40	20	45
2.01%-4.00%	60	50	20	60
>4.00%	70	60	20	60

* Dyeing : Exhaustion : 30-60 min | * Temp. at : 40°C Fixation : 30-60 min

EXHAUST DYEING PROCESS DIAGRAM

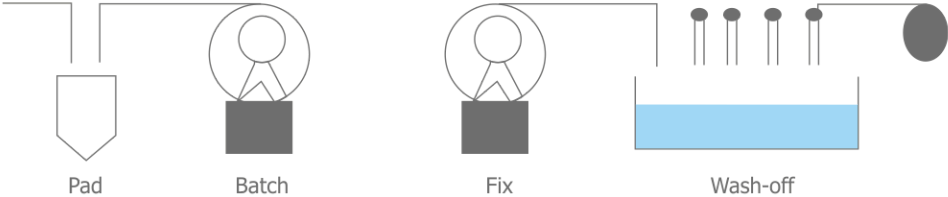


COLD PAD BATCH DYEING METHOD

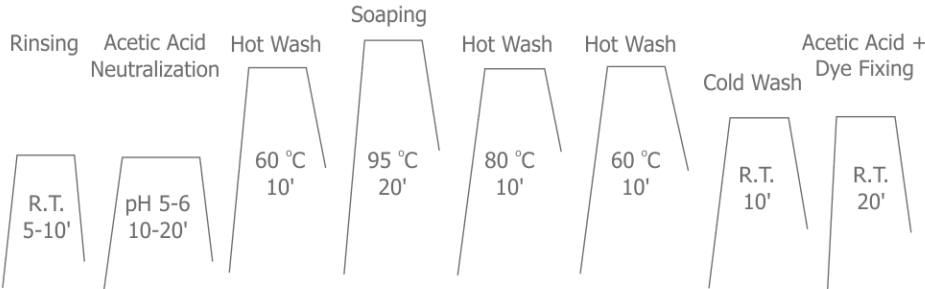
COLOR PADDING SOLUTION	Dye (X gpl)	800 ml
	Urea (50 gpl)	
	Soda Ash (10%)	200 ml
	Total	1000 ml

*Pad with 70% expression | *Dry the fabric at maximum 100 °C temp

COLD PAD BATCH - DYEING PROCESS DIAGRAM



WASHING PROFILE



M-X DYES FEATURES

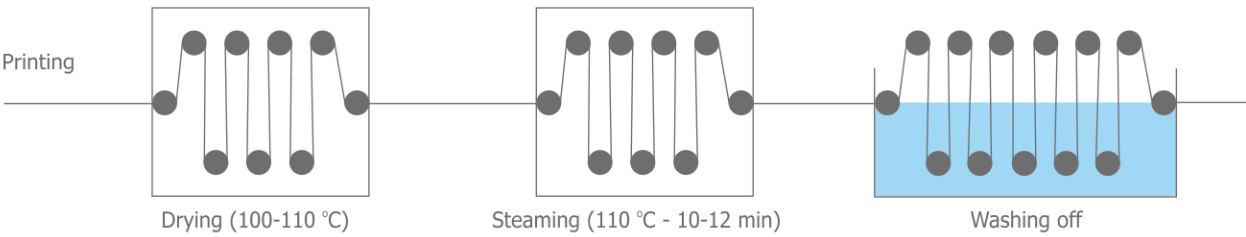
- **HIGH COLOR FASTNESS:** SHLOKKAZOL M-X DYES OFFER EXCEPTIONAL COLOR FASTNESS PROPERTIES, INCLUDING WASH FASTNESS, LIGHT FASTNESS AND PERSPIRATION FASTNESS. THIS MEANS THAT THE DYED FABRIC MAINTAINS ITS COLOR EVEN AFTER REPEATED WASHES, EXPOSURE TO LIGHT AND CONTACT WITH SWEAT.
- **WIDE COLOR RANGE:** SHLOKKAZOL M-X DYES ARE AVAILABLE IN A WIDE RANGE OF COLORS, PROVIDING TEXTILE MANUFACTURERS WITH A DIVERSE PALETTE TO CREATE VIBRANT AND APPEALING COLOR SHADES. THIS ALLOWS FOR GREATER CREATIVITY AND DESIGN POSSIBILITIES.
- **GOOD LEVELING AND PENETRATION:** SHLOKKAZOL M-X DYES HAVE EXCELLENT LEVELING AND PENETRATION PROPERTIES, ENSURING THAT THE DYE EVENLY SPREADS AND PENETRATES THE FABRIC. THIS RESULTS IN UNIFORM AND CONSISTENT COLOR DISTRIBUTION THROUGHOUT THE MATERIAL.
- **HIGH COLOR YIELD:** SHLOKKAZOL M-X DYES PROVIDE A HIGH COLOR YIELD, MEANING THAT THEY CAN ACHIEVE DEEP AND INTENSE COLORS WITH RELATIVELY SMALL AMOUNTS OF DYE. THIS TRANSLATES TO COST SAVINGS FOR MANUFACTURERS AS LESS DYE IS REQUIRED TO ACHIEVE THE DESIRED COLOR INTENSITY.
- **ECO-FRIENDLY:** SHLOKKAZOL M-X DYES ARE CONSIDERED TO BE RELATIVELY ECO-FRIENDLY COMPARED TO SOME OTHER TYPES OF DYES. THEY ARE WATER-SOLUBLE AND DO NOT CONTAIN HARMFUL HEAVY METALS. THIS MAKES THEM SAFER FOR THE ENVIRONMENT AS WELL AS FOR THE WORKERS HANDLING THE DYES.
- **COMPATIBILITY WITH VARIOUS FIBERS:** SHLOKKAZOL M-X DYES ARE PRIMARILY USED FOR DYEING CELLULOSIC FIBERS LIKE COTTON BUT THEY CAN ALSO BE USED ON OTHER NATURAL FIBERS SUCH AS LINEN, SILK AND WOOL. THEY FORM STRONG COVALENT BONDS WITH THE FIBER MOLECULES, RESULTING IN GOOD COLOR FASTNESS AND DURABILITY.
- **EASY APPLICATION:** SHLOKKAZOL M-X DYES CAN BE EASILY APPLIED TO TEXTILES USING VARIOUS DYEING TECHNIQUES SUCH AS EXHAUST DYEING, PAD-DRY-CURE OR PRINTING METHODS. THIS ALLOWS FOR FLEXIBILITY IN THE DYEING PROCESS AND EASE OF INTEGRATION INTO EXISTING MANUFACTURING PROCESSES.
- **GOOD LIGHT AND HEAT STABILITY:** SHLOKKAZOL M-X DYES EXHIBIT EXCELLENT STABILITY TO LIGHT AND HEAT. THIS MEANS THAT THE DYED FABRIC RETAINS ITS COLOR EVEN WHEN EXPOSED TO SUNLIGHT OR HIGH TEMPERATURES, ENSURING LONG-LASTING AND DURABLE COLORATION.

H & P DYES

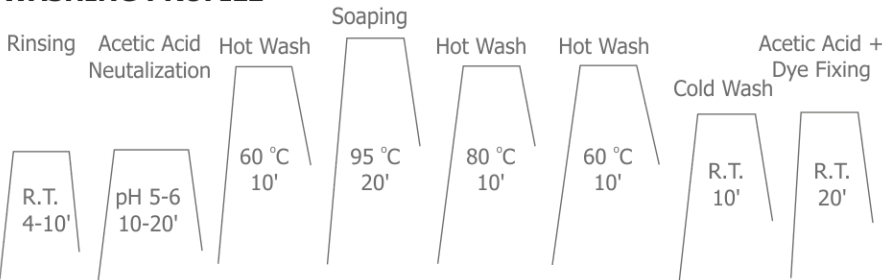
 REAZOL PRINTING SERIES	CI No.	Shade 2.0% o.w.f.	Solubility in gpl at 30 °C	Affinity	Reactivity	Fixation Temperature °C at Steaming	Process Suitability				Other Fastness			Light Fastness AATCC 16E			Post Fastness Properties				
							Exhaust	Cold Pad Batch	Printing	Continuous	Washing Fastness ISO 105 C04	Rubbing ISO 105/X12 Dry	Rubbing ISO 105/X12 Wet	0.1%	1.0%	2.0%	Water ISO 105 E01	Chlorinated Pool Water AATCC 162.2002	Hydrogen Peroxide	Perspiration ISO 105 E04 Acid	Perspiration ISO 105 E04 Alkali
Yellow H6G	Yellow 95		80	L	M	110	NS	NS	HS	NS	4	4-5	4	3-4	4	4	4-5	3-4	3-4	4-5	4-5
Yellow H4G	Yellow18		150	L	M	110	NS	NS	HS	NS	5	4-5	4	4	4	4	4-5	3-4	3-4	4	4-5
Go.Yellow P2RN	Orange12		100	M	M	110	NS	NS	HS	NS	5	4-5	4	3-4	4	4	4-5	3-4	4-5	4-5	4-5
Orange P2R	Orange13		100	M	M	110	NS	NS	HS	NS	4-5	4	3-4	3	3-4	4	4-5	3	4	3-4	4
Red PB	Red 24		100	H	L	110	NS	NS	HS	NS	4-5	4	4	3	3-4	4	4-5	3-4	3-4	3-4	4
Red P2B	Red 45		100	M	L	110	NS	NS	HS	NS	4-5	4	3-4	3-4	4	4	4-5	3-4	1	3-4	4
Red P4B	Red 245		150	M	L	110	NS	NS	HS	NS	4-5	4	3-4	3-4	4	4	4	1	1	3-4	4
Red P6B	Red 76		80	M	L	110	NS	NS	HS	NS	3-4	4	3	2-3	3	3-4	3-4	3	3-4	4	4-5
Red P8B	Red 31		80	M	L	110	NS	NS	HS	NS	4-5	3-4	3	2-3	3	3	4-5	3	2-3	3-4	4
Red P8BN	Red*		80	M	L	110	NS	NS	HS	NS	4-5	4	3-4	2-3	3	3	4-5	3-4	2-3	3-4	4
Magenta PB	Violet 13		80	M	L	110	NS	NS	HS	NS	4-5	4	3	3	3	3-4	4-5	2-3	2-3	3-4	4
Turq. Blue H5G	Blue 25		80	H	L	110	NS	NS	HS	NS	2-3	3-4	2-3	3	3	3-4	3	2-3	3	4	4
Turq Blue PGR	Blue 72		80	M	M	110	NS	NS	HS	NS	4-5	3-4	3	3-4	4	4	4	1-2	3	4	4
Blue P3R	Blue 49		100	M	M	110	NS	NS	HS	NS	4-5	3-4	3	3-4	4	4	4	1-2	3	4	4-5
Blue H5R	Blue 13		80	M	L	110	NS	NS	HS	NS	4	4	3-4	3-4	3-4	4	4	1	1	4	4
Purple P3R	Violet 1		100	M	L	110	NS	NS	HS	NS	4-5	4	3-4	3-4	4	4	5	2-3	2-3	4	4
Navy Blue RX	Blue 79		100	M	M	110	S	S	S	NS	4	4	3-4	--	3	4	4-5	2-3	3	4	4-5
Navy Blue P2R	Black 39		120	L	M	110	NS	NS	HS	NS	4	4	3-4	--	3	3-4	4-5	2-3	3	4	4-5
Red Brown H4R	Brown 9		60	M	L	110	NS	NS	HS	NS	4-5	4	3-4	3	3	3-4	4-5	3	3	4	4
Black HN	Black 8		80	L	M	110	NS	NS	HS	NS	4-5	3-4	3	3	3-4	4	4-5	1	3	4	4
Black PGR	Black*		120	L	M	110	NS	NS	HS	NS	4	4	3-4	--	3	3-4	4-5	2-3	3	4	4-5

H - High | M - Medium | L - Low | HS - High Suitable | S - Suitable | LS - Low Suitable | NS - Not Suitable

PRINTING PROCESS



WASHING PROFILE



PRINT PLASTE RECIPE

Water	45 Lt.
SHMP	0.5 kg
Sodium Alginate (Gum)	4.0 kg
STIR THE GUM	Hrs
Urea	7.5 kg
Resist Salt	1.0 kg
Sodium Bicarbonate	4.0 kg
Add water to make	100 kg

PRINTING DYES FEUTURES

- USEFUL IN THE PRINTING OF CELLULOSIC FABRICS AND VISCOSE RAYON.
- LOW SUBSTANTIVITY WHICH MINIMIZES STAINING OF ADJACENT WHITE PORTIONS IN PRINT.
- GOOD PRINT PASTE STABILITY IN THE PRESENCE OF ALKALI DUE TO LOW REACTIVITY.
- SUITABLE FOR STEAM PROCESS AND SILICATE PROCESS.
- MEETS ALL STANDARD FASTNESS REQUIREMENTS.
- AVAILABLE IN A WIDE RANGE OF COLORS.
- HIGH COLOR YIELD AND BRIGHTNESS.
- EXCELLENT LIGHT AND WASHING FASTNESS.
- ENVIRONMENTALLY FRIENDLY AND SAFE FOR USE IN TEXTILE PRINTING PROCESSES.

HE DYES

 REAZOL M-X TYPE SERIES	CI No.	Shade 2.0% o.w.f.	Solubility in gpl at 30 °C	Affinity	Reactivity	Fixation Temperature °C	Process Suitability				Dischargeability	Other Fastness		Light Fastness AATCC 16E			Post Fastness Properties				
							Exhaust	Cold Pad Batch	Printing	Continuous		Washing Fastness ISO 105 C04	Rubbing ISO 105/X12 Dry / Wet	0.1%	1.0%	2.0%	Water ISO 105 E01	Chlorinated Pool Water AATCC 162.2002	Hydrogen Peroxide	Mercerizing (ISO 105 X0)	Perspiration ISO 105 E04 Acid / Alkali
Yellow HE6G	Yellow 135		50	H	L	60-80	S	NS	S	NS	Good	4-5	4-5 4	3-4	3-4	4	4-5	3	4-4	-	4-5 4-5
Yellow HE4G	Yellow 81		40	M	H	80	HS	NS	NS	NS	Poor	4	3-4 3-4	3-4	3-4	4	4	4	4-5	4	4-5 4-5
Go. Yellow HE4R	Yellow 84		70	H	H	80	HS	S	NS	NS	Poor	4	3-4 3	3	3-4	4	4	4	4-5	4	4-5 4-5
Go.Yellow HER	Yellow 84 A		80	H	H	80	HS	S	LS	NS	Poor	4	3-4 3	3	3	3-4	4	4	4-5	4	4-5 4-5
Orange HER	Orange 84		50	H	H	80	HS	LS	NS	NS	Poor	4-5	3-4 2-3	2-3	3-4	3-4	3-4	3-4	4-5	3	4 4
Orange HE2R	Orange86		80	H	M	60-80	S	LS	NS	NS	Poor	3-4	3-4 2-3	2-3	3	3-4	4	4-5	5	3	4 4
Red HE3B	Red 120		100	H	H	80	HS	LS	NS	NS	Poor	4-5	4 3	3-4	4	4	4-5	4	4	4	4-5 4-5
Red HE7B	Red 141		120	H	H	80	HS	S	S	NS	Poor	4-5	4 3	3-4	3-4	4	4-5	4	4	4	4-5 4-5
Red HE8B	Red 152		100	H	L	80	S	NS	NS	NS	Poor	4-5	4 3	2-3	3	3	4	4-5	4	4	4-5 4-5
Blue HERD	Blue 160		100	H	H	80	HS	S	NS	NS	Poor	4-5	4 4	3-4	4	4	4-5	3	3-4	4	4-5 4-5
Blue HEGN	Blue 195		100	H	H	80	HS	S	NS	NS	Poor	4-5	4 3	3-4	4	4	4-5	1	3-4	4	4-5 4
Turquoise Blue HA	Blue 71		100	M	H	80	HS	S	NS	NS	Poor	4-5	4 3	3-4	4	4	4-5	1	3-4	4	4-5 4
Green HE4BD	Green 19		80	H	H	80	HS	LS	NS	NS	Poor	4-5	3-4 3	3-4	3-4	4	4-5	4	3-4	4	4-5 4-5
Green HE4B	Green 19 A		80	H	L	60-80	S	NS	NS	NS	Poor	4	3-4 3	2-3	3	3-4	4	3-4	3-4	3-4	3-4 3-4
Navy Blue HER	Blue 171		100	H	H	80	HS	S	NS	NS	Good	4-5	3-4 3-4	3	3-4	3-4	4-5	3	4	4	4-5 4-5
Navy Blue HE2R	Blue 172		100	L	M	60-80	S	S	S	NS	Poor	4	3-4 3	3	3-4	4	4	-	4	2-3	4-5 4-5

H - High | M - Medium | L - Low | HS - High Suitable | S - Suitable | LS - Low Suitable | NS - Not Suitable



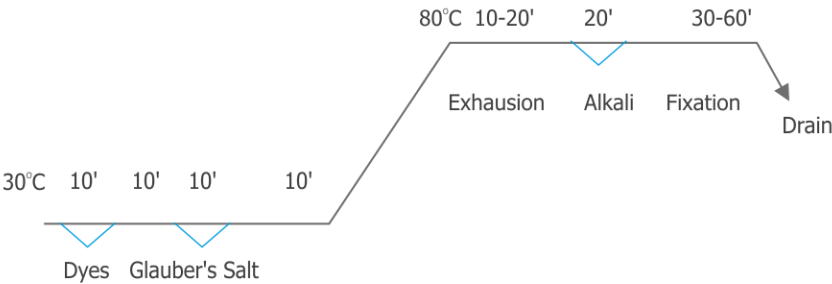
DYEING METHOD : EXHAUST DYEING

M:L Ratio - 1:10 | SALT & ALKALI REQUIREMENT

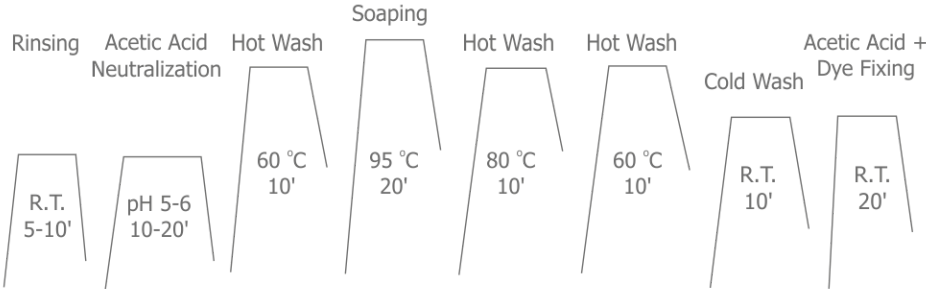
DEPTH OF SHADE	SODIUM CHLORIDE OR GLAUBER SALT GPL		SODA ASH GPL	FIXATION (MINUTES)
	UNMERC. COTTON/KNITS	VISCOSE OR MERC. COTTON		
Upto 0.10% 10	50	10	30	
0.11 - 0.30%	20	10	10	30
0.31% - 0.50%	30	20	15	30
0.51% - 1.00%	40	30	15	45
1.01% - 2.0%	50	40	20	45
2.01% - 4.00%	60	50	20	60
>4.00%	70	60	20	60

* Dyeing : Exhaustion : 30-60 min | * Temp. at : 80 °C Fixation : 30-60 min

DYEING DYEING PROCESS DIAGRAM



WASHING PROFILE



HE DYES FEATURES

- SHLOKKAZOL HE REACTIVE DYES WITH HIGH EXHAUST HAVE GOOD SOLUBILITY IN WATER, WHICH ALLOWS FOR EFFICIENT DYEING AND REDUCED WATER USAGE.
- THESE DYES HAVE A HIGH FIXATION RATE, WHICH MEANS THAT A HIGH PERCENTAGE OF THE DYE IS ABSORBED BY THE FABRIC DURING THE DYEING PROCESS.
- SHLOKKAZOL HE DYES WITH HIGH EXHAUST ARE ABLE TO PENETRATE DEEP INTO THE FABRIC FIBERS, RESULTING IN A VIBRANT AND LONG-LASTING COLOR.
- THESE DYES HAVE EXCELLENT COLORFASTNESS, MEANING THAT THE COLOR DOES NOT FADE OR BLEED EASILY WHEN EXPOSED TO LIGHT, WATER OR OTHER ENVIRONMENTAL FACTORS.
- THESE DYES WITH HIGH EXHAUST ARE VERSATILE AND CAN BE USED TO DYE A VARIETY OF NATURAL AND SYNTHETIC FIBER, INCLUDING COTTON, WOOL, SILK AND NYLON.
- THESE DYES ARE ECO-FRIENDLY AND DO NOT CONTAIN HARMFUL CHEMICALS THAT CAN HARM THE ENVIRONMENT OR HUMAN HEALTH.
- SHLOKKAZOL HE REACTIVE DYES WITH HIGH EXHAUST ARE EASY TO APPLY AND CAN BE USED IN A VARIETY OF DYEING METHODS, INCLUDING EXHAUST, CONTINUOUS AND SEMI-CONTINUOUS DYEING PROCESSES.
- THESE DYES HAVE GOOD STABILITY AND CAN WITHSTAND HIGH TEMPERATURES AND PH LEVELS DURING THE DYEING PROCESS.

VS DYES

 REAZOL VINYL SULPHONE SERIES	CI No.	Shade 2.0% o.w.f.	Solubility in gpl at 30 °C	Affinity	Reactivity	Fixation Temperature °C	Process Suitability				Dischargeability	Other Fastness		Light Fastness AATCC 16E			Post Fastness Properties			
							Exhaust	Cold Pad Batch	Printing	Continuous		Washing Fastness ISO 105 C04	Rubbing ISO 105/X12 Dry / Wet	0.1%	1.0%	2.0%	Water ISO 105 E01	Chlorinated Pool Water AATCC 162.2002	Hydrogen Peroxide	Perspiration ISO 105 E04 Acid / Alkali
Yellow FG	Yellow 42		100	H	M	60	S	S	S	NS	Good	5 4	4-5	3	3-4	3-4	4-5	2-3	4-5	5 5
Yellow GR	Yellow 15		100	H	M	60	S	S	LS	LS	Good	4-5	4-5	3	3-4	4	4	3-4	4-5	5 5
Go Yellow RNL H/C	Orange 107		100	H	M	60	S	HS	S	S	Good	5 4	5 4	3-4	3-4	4	5	2-3	4-5	5 5
Go Yellow R	Yellow 201		100	H	M	60	S	S	S	S	Good	4-5	5 3-4	3-4	3	4-5	4	2-3	4-5	5 4-5
Yellow 3RF	Yellow*		100	H	M	60	S	S	S	LS	Good	4-5	4-5 4	3-4	3-4	4	4	3	4-5	4-5 4-5
Brill. Orange 3R	Orange 16		80	M	M	60	S	LS	S	LS	Good	4-5	5 3-4	3	3-4	3-4	4-5	2-3	4-5	4-5 4-5
Brill Orange 2R	Orange 7		120	M	M	60	S	LS	S	NS	Good	4-5	5 3-4	3	3	3	4-5	2-3	4-5	5 5
Brill. Red 5B	Red 35		100	M	M	60	LS	S	S	S	Good	3-4	3-4 3-4	3	3	3-4	4	2-3	4	4-5 4-5
Red RB	Red 198		100	M	M	60	S	S	S	S	Moderate	4-5	4-5 3-4	3-5	4	4	4-5	3	4	4-5 3-4
Red BB	Red 21		150	M	M	60	S	S	S	S	Good	4-5	5 3-4	3	3-4	3-4	4-5	2	4-5	4-5 4-5
Red BS H/C	Red 111		100	M	M	60	HS	S	LS	LS	Moderate	4-5	5 3-4	2-3	3	3	4-5	2-3	3	4-5 4-5
Brill Violet 5R H/C	Violet 5		80	H	M	60	S	S	S	LS	Poor	4	5 3-4	3-4	4	4	4-5	3	2-3	4-5 3-4
Turq. Blue G	Blue 21		80	H	M	80	S	S	S	LS	Poor	2-3	3-1 2-3	3	3-4	3-4	3	3-4	3	4 4
Turq Blue G 266%	Blue 21		80	H	M	80	S	S	S	LS	Poor	2-3	3-1 2-3	3	3-4	3-4	3	3-4	3	4 4
Turq Blue H2GP	Blue *		80	H	M	80	S	S	S	LS	Poor	2-3	3-4 2-3	3	3-4	3-4	3	3-4	3	4 4
Blue BB	Blue 220		100	H	M	60	S	S	S	S	Poor	4	5 3-4	4	4-5	4-5	4	3	4	3-4 4
Blue 3R	Blue 28		80	L	L	60	S	S	S	LS	Poor	3-4	5 3-4	4	4	4	4	2-3	2-3	4 3-4
Blue R SPL	Blue 19		80	H	M	60	S	S	S	LS	Poor	4	5 3-4	4	4	4-5	4-5	3	4-5	5 4-5
Brown GR	Brown 18		80	M	M	60	S	S	S	S	Good	3-4	4-5 3-4	3-4	3-4	4	4	2-3	3-4	4 4
Navy Blue EGB	Blue 250		100	L	M	60	S	S	S	S	Good	4-5	4-5 3	3	3-4	4	4-5	2-3	4	4-5 4-5
Navy Blue GG	Blue 203		100	H	M	60	HS	HS	S	S	Good	4-5	3-4 3	3	3-4	4	4	3-4	4-5	4-5 4-5
Black RL	Black 31		100	L	L	60	S	S	S	S	Poor	4	4-5 3	3-4	4	4	4-5	33	4	5 5
Black B	Black 5		250	H	M	60	HS	HS	S	S	Good	4	4 3-4	2-3	3	3	4	2	4	4-5 4-5

H - High | M - Medium | L - Low | HS - High Suitable | S - Suitable | LS - Low Suitable | NS - Not Suitable

DYEING METHOD : EXHAUST DYEING

M:L Ratio - 1:10 | SALT & ALKALI REQUIREMENT

DEPTH OF SHADE	SODIUM CHLORIDE OR GLAUBER SALT		SODA ASH GPL	SODA + CAUSTIC GPL	FIXATION (MINUTES)
	UNMERC. COTTON/KNITS	VISCOSE OR MERC. COTTON			
Upto 0.10%	10	7	10	-	30
0.11 - 0.30%	20	10	15	-	30
0.31% - 0.50%	30	20	20	-	30
0.51% - 1.00%	40	30	20	-	45
1.01% - 2.00%	50	40	-	10-0.75	45
2.01% - 4.00%	60	50	-	10+1.0	60
>4.00%	70	60	-	10+1.5	60

* Dyeing : Exhaustion : 30-60 min | * Temp. at : 60°C Fixation : 30-60 min

COLD PAD BATCH DYEING METHOD

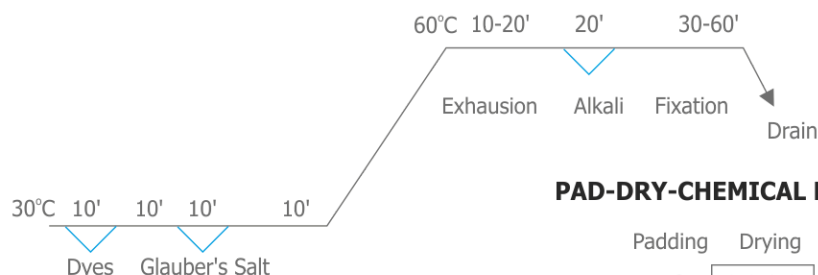
COLOR PADDING SOLUTION	Dyestuff	X	GPL
	Anti-migrating agent	1-2	GPL
	Urea	30-50	GPL
	Resist Salt	1	GPL

*Pad with 70% expression | *Dry the fabric at maximum 100 °C temp

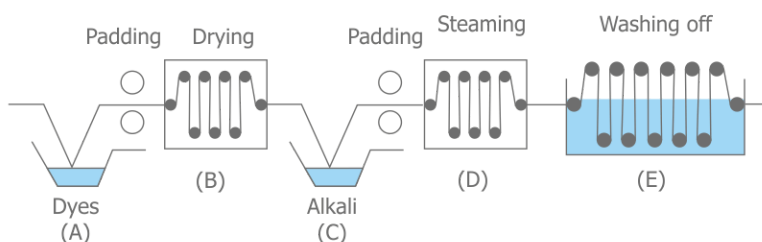
CHEMICAL PAD	Glauber Salt	150-250	GPL
	Soda Ash	15-20	GPL
	Caustic Flakes	2-4	GPL

*Pad with 70% expression | *Steam at 102 °C for 45-60 seconds.

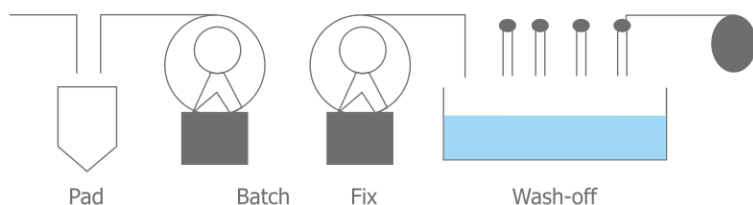
EXHAUST DYEING PROCESS DIAGRAM



PAD-DRY-CHEMICAL PAD-STEAM-DYING PROCESS DIAGRAM



COLD PAD BATCH - DYEING PROCESS DIAGRAM



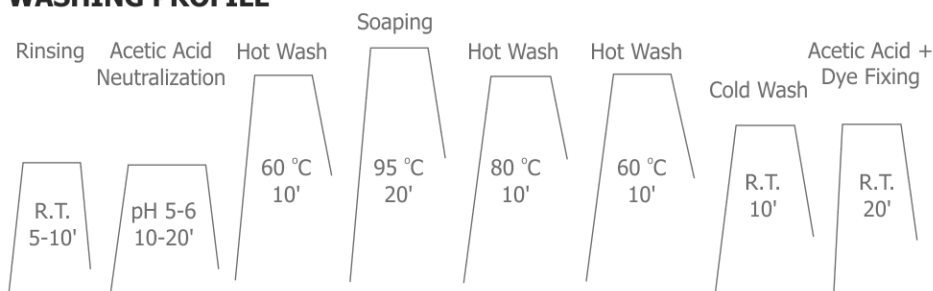
COLD PAD BATCH DYEING METHOD

DYE SOLUTION (PREPARED BELOW 25 °C) 4 PARTS	Dyestuff	X	GPL
	Urea	50-100	GPL
	Wetting & Rewetting Agent	1-2	GPL
	Sequestering Agent	1-2	GPL

SLICATE SOLUTION 1 PARTS	Sodium Silicate Na2O: SiO2 : 1:2:1 (110-120°Tw)	100	GPL
	Caustic Flakes	4-8	GPL

Pad & Keep for 16 hours, well covered and under constant rotation.

WASHING PROFILE



VS DYES FEATURES

- SHLOKKAZOL VINYL SULFONE REACTIVE DYES ARE SUITABLE FOR A VARIETY OF DYEING METHODS INCLUDING EXHAUST, CONTINUOUS PROCESSING (CPB), PAD-DRY-STEAM, PAD-DRY-CHEMICAL PAD-STEAM AND DISCHARGE PRINTING.
- THESE DYES HAVE LOW TO MEDIUM AFFINITY, MAKING THEM WELL-SUITED FOR CONTINUOUS DYEING METHODS.
- THE REACTIVE GROUP OF THE DYE FORMS A COVALENT BOND WITH THE CELLULOSE FIBER DURING THE DYEING PROCESS, RESULTING IN EXCELLENT WASH AND LIGHT FASTNESS PROPERTIES.
- THE EXHAUST DYEING PROCESS FOR THESE DYES TYPICALLY OCCURS AT AN OPTIMUM TEMPERATURE RANGE OF 50-60°C.
- SHLOKKAZOL VINYL SULFONE REACTIVE DYES HAVE A HIGH DEGREE OF REACTIVITY AND OFFER EXCELLENT COLOR YIELD AND REPRODUCIBILITY.
- THESE DYES ARE COMMONLY USED FOR DYEING CELLULOSIC FABRICS AND ARE KNOWN FOR THEIR BRIGHT AND VIBRANT SHADES.
- THEY HAVE GOOD STABILITY IN THE PRESENCE OF ALKALI, MAKING THEM SUITABLE FOR A WIDE RANGE OF DYEING CONDITIONS.

ME DYES

 REAZOL Bi-Functional SERIES	CI No.	Shade 2.0% o.w.f.	Solubility in gpl at 30 °C	Affinity	Reactivity	Fixation Temperature °C	Process Suitability				Dischargeability	Other Fastness		Light Fastness AATCC 16E			Post Fastness Properties			
							Exhaust	Cold Pad Batch	Printing	Continuous		Washing Fastness ISO 105 C04	Rubbing ISO 105/X12 Dry / Wet	0.1%	1.0%	2.0%	Water ISO 105 E01	Chlorinated Pool Water AATCC 162.2002	Hydrogen Peroxide	Perspiration ISO 105 E04 Acid / Alkali
Yellow ME4GL H/C	Yellow 186		80	H	L	60	LS	S	S	NS	Moderate	4-5	4-5 4-5	4	4	4	4-5	3	4-5	4-5 4-5
Yellow MERL H/C	Yellow 145		100	H	M	60	HS	HS	S	S	Moderate	4-5	4-5 3-4	4	4	4	4	4-5	4-5	4 4
Orange ME2RL H/C	Orange 122		80	H	M	60	S	NS	LS	LS	Moderate	4-5	4 3-4	2-3	3	3-4	4	4-5	5 4	4 4
Red MERK	Red 222A		80	H	M	60	HS	HS	S	S	Poor	4-5	4 4	3-4	4	4-	4	4	3-4	4-5 4-5
Red 3GXL	Red 223		100	H	M	60	HS	HS	S	HS	Good	4-5	4 3-4	3-4	4	4	4	4	4	4-5 4-5
Red ME3BL H/C	Red 194		100	H	M	60	S	S	S	S	Moderate	4-5	4 3-4	3-4	4	4	4	4	4-5	4-5 4-5
Red ME4BL	Red 195		150	M	M	60	HS	HS	S	S	Poor	4-5	4 4	3	3-4	4	4	4	4	4-5 4-5
Red ME6BL	Red 250		80	M	M	60	S	LS	NS	S	Poor	4-5	4 4	3	3-4	4	4	4	4-5	4-5 4-5
Violet ME2RL	Violet*		100	M	M	60	HS	S	S	S	Moderate	4-5	4 4	3	3-4	4	4	2	2	4-5 4-5
Blue S	Blue*		100	M	M	60	HS	S	S	LS	Moderate	4-5	4 4	4	4	4	4	1	2	4-5 4-5
Blue MERF 150%	Blue 221		100	H	L	60	HS	S	S	LS	Moderate	4-5	4 4	4	4	4	4	1	2	4-5 4-5
Blue ME2GL	Blue 194		100	M	M	60	HS	S	S	S	Poor	4-5	4 4	3	3	3-4	4	4	4-5	4-5 4-5
Blue ME2RL	Blue 248		100	M	M	60	S	NS	NS	S	Poor	3-4	4 3-4	3	3	3-4	3-4	2-3	4 4	4 4
Navy Blue MEBL H/C	Blue 223		100	M	M	60	HS	S	S	S	Good	4-5	4 4	3	3	3-4	1	2	4-5	4-5 4-5

H - High | **M** - Medium | **L** - Low | **HS** - High Suitable | **S** - Suitable | **LS** - Low Suitable | **NS** - Not Suitable

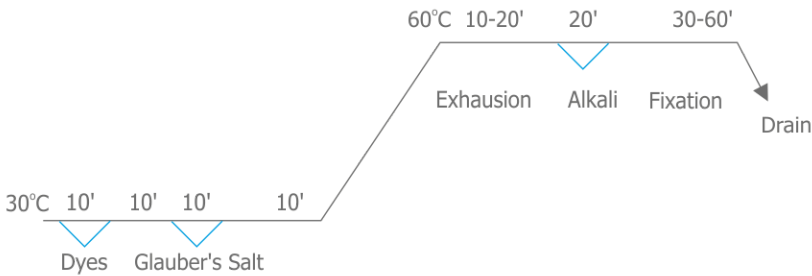
DYEING METHOD : EXHAUST DYEING M:L Ratio - 1:10 | SALT & ALKALI REQUIREMENT

DEPTH OF SHADE	SODIUM CHLORIDE OR GLAUBER SALT		SODA ASH GPL	FIXATION (MINUTES) GPL	FIXATION (MINUTES)
	UNMERC. COTTON/KNITS	VISCOSE OR MERC. COTTON			
Upto 0.10%	10	7	10	-	30
0.11 - 0.30%	20	10	15	-	30
0.31% - 0.50%	30	20	20	-	30
0.51% - 1.00%	40	30	20	-	45
1.01% - 2.00%	50	40	-	10-0.75	45
2.01% - 4.00%	60	50	-	10+10	60
>4.00%	70	60	-	10+15	60

* Dyeing : Exhaustion : 30-60 min | * Temp. at : 60°C Fixation : 30-60 min



EXHAUST DYEING PROCESS DIAGRAM



COLD PAD BATCH DYEING METHOD

COLOR PADDING SOLUTION	Dyestuff	X	GPL
	Anti-migrating agent	1-2	GPL
	Urea	30-50	GPL
	Resist Salt	1	GPL

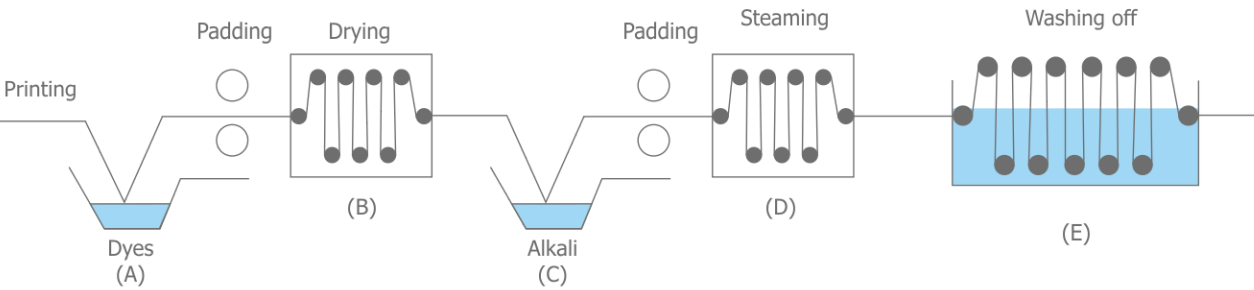
*Pad with 70% expression | *Dry the fabric at maximum 100 °C temp

COLD PAD BATCH DYEING METHOD

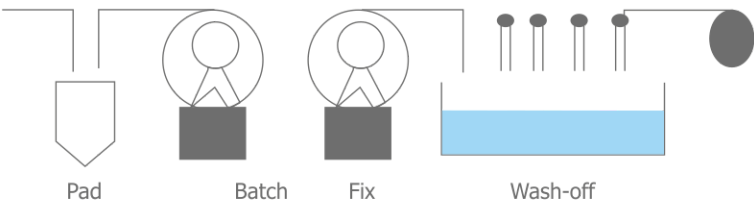
CHEMICAL PAD	Glauber Salt	150-250	GPL
	Soda Ash	15-20	GPL
	Caustic Flakes	2-4	GPL

*Pad with 70% expression | *Steam at 102 °C for 45-60 seconds.

PAD-DRY-CHEMICAL PAD-STEAM-DYRING PROCESS DIAGRAM



COLD PAD BATCH - DYEING PROCESS DIAGRAM



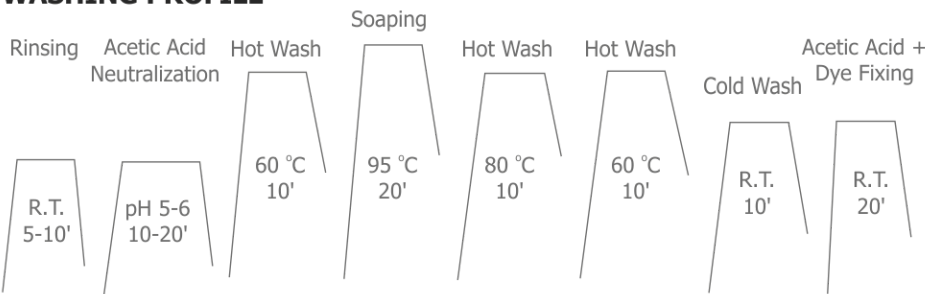
COLD PAD BATCH DYEING METHOD

DYE SOLUTION (PREPATED BELOW 25 °C) 4 PARTS	Dyestuff	X	GPL
	Urea	50-100	GPL
	Wetting & Rewetting Agent	1-2	GPL
	Sequestering Agent	1-2	GPL

SLICATE SOLUTION 1 PARTS	Sodium Silicate Na2O: SiO2 : 1:2:1 (110-120°Tw)	100	GPL
	Caustic Flakes	4-8	GPL

Pad & Keep for 16 hours, well covered and under constant rotation.

WASHING PROFILE



ME DYES FEATURES

- EXCELLENT WASH-FASTNESS AND LIGHT-FASTNESS PROPERTIES
- GOOD COLOR YIELD AND BRIGHTNESS
- HIGH AFFINITY TO CELLULOSE FIBERS, RESULTING IN DEEP AND VIBRANT SHADES.
- SUITABLE FOR DYEING A WIDE RANGE OF CELLULOSE FIBERS, INCLUDING COTTON, VISCOSE AND LINEN.
- CAN BE USED IN COMBINATION WITH OTHER REACTIVE DYES TO ACHIEVE VARIOUS SHADES AND COLOR COMBINATIONS.
- GOOD COMPATIBILITY WITH OTHER CHEMICALS USED IN THE DYEING PROCESS, SUCH AS REDUCING AGENTS AND ALKALIS.
- CAN BE USED FOR VARIOUS DYEING METHODS, INCLUDING EXHAUST, COLD PAD BATCH, PAD-DRY-STEAM AND PAD-DRY-CHEMICAL PAD-STEAM.
- HAVE GOOD STABILITY IN THE PRESENCE OF ALKALI, MAKING THEM SUITABLE FOR HIGH-TEMPERATURE DYEING PROCESSES.
- BI-FUNCTIONAL STRUCTURE ENSURES GOOD EXHAUSTION AND FIXATION OF DYES ONTO THE FIBERS, RESULTING IN HIGH COLOR YIELDS AND EFFICIENT USE OF DYE.
- SUITABLE FOR VARIOUS DYEING APPLICATIONS, INCLUDING GARMENT DYEING, PIECE DYEING AND YARN DYEING.
- CAN ACHIEVE EXCELLENT COLOR FASTNESS TO PERSPIRATION, RUBBING AND WASHING.
- AVAILABLE IN A WIDE RANGE OF COLORS AND SHADES.

EGB DYES

 REAZOL EGB SERIES	Shade 2.0% o.w.f.	Solubility in gpl at 30 °C	Affinity	Reactivity	Fixation Temperature °C	Process Suitability				Dischargeability	Other Fastness		Light Fastness AATCC 16E			Post Fastness Properties			
						Exhaust	Cold Pad Batch	Printing	Continuous		Washing Fastness ISO 105 C04	Rubbing ISO 105/X12 Dry / Wet	0.1%	1.0%	2.0%	Water ISO 105 E01	Chlorinated Pool Water AATCC 162.2002	Hydrogen Peroxide	Perspiration ISO 105 E04 Add / Alkali
Yellow EGB		100	L	L	60	S	S	S	S	Moderate	4-5	4 3-4	3	3-4	4	4-5	2-3	4	5 4-5
Ultra Yellow EGB		80	L	H	60	S	S	S	S	Moderate	4-5	4 4	3-4	4	4	4-5	3-4	4	4-5 4-5
Orange EGB		100	H	H	60	S	S	S	S	Moderate	4	4 3-4	3	3-4	4	3-4	2-3	3-4	4 4
Ultra Orange EGB		100	H	H	60	S	S	S	S	Moderate	4	4 3-4	3	3-4	4	3-4	2-3	3-4	4 4
Scarlet EGB		100	L	H	60	S	S	S	S	Good	4-5	4-5 3	3	3-4	4	4-5	2-3	4	4 4-5
Ultra Carmine EGB		100	M	H	60	S	S	S	S	Moderate	4	4-5 3	3	3-4	4	4	3	4	4 4-5
Ultra Red EGB		120	M	H	60	S	S	S	S	Moderate	4	4-5 4	3	3	3-4	4	4	3-4	4-5 4-5
Deep Red EGB		100	H	H	60	S	S	S	S	Moderate	4	4 3-4	-	3	3-4	4	-	3-4	3-4 4
Red EGB		120	M	H	60	S	S	S	S	Moderate	4	4-5 4	3	3	3-4	4	4	3-4	4-5 4-5
Ultra Rubine EGB		100	L	H	60	S	S	S	S	Good	4-5	4-5 3	3	3-4	4	4-5	2-3	4	4 4-5
Blue EGB		100	L	H	60	S	S	S	S	Good	4	4 3-4	3	3-4	4	4-5	3-4	4-5	4-5 4-5
Navy Blue EGB		150	L	H	60	S	S	S	S	Good	4-5	4-5 3	3	3-4	4	4-5	3-4	4	4 4-5
Gray EGB		80	L	H	60	S	S	S	S	Moderate	4-5	4 4	3-4	4	4	4-5	3-4	4	4-5 4-5
Deep Black N-150		150	L	H	60	S	S	S	S	Good	4-5	4-5 3	3	3-4	4	4-5	2-3	4	4 4-5
Carbon EGB		150	L	H	60	S	S	S	S	Good	4-5	4-5 3	3	3-4	4	4-5	2-3	4	4 4-5
Onyx EGB		150	L	H	60	S	S	S	S	Good	4-5	4-5 3	3	3-4	4	4-5	2-3	4	4 4-5
Midnight Black EGB		150	L	H	60	S	S	S	S	Good	4-5	4-5 3	3	3-4	4	4-5	2-3	4	4 4-5
Deep Black EGBN		150	L	H	60	S	S	S	S	Good	4-5	4-5 3	3	3-4	4	4-5	2-3	4	4 4-5

H - High | M - Medium | L - Low | HS - High Suitable | S - Suitable | LS - Low Suitable | NS - Not Suitable



DYEING METHOD : EXHAUST DYEING

M:L Ratio - 1:10 | SALT & ALKALI REQUIREMENT

DEPTH OF SHADE	SODIUM CHLORIDE OR GLAUBER SALT		SODA ASH GPL	SODA+ CAUSTIC GPL	FIXATION (MINUTES)
	UNMERC. COTTON/KNITS	VISCOSE OR MERC. COTTON			
Upto 0.10%	10	7	10	-	30
0.11 - 0.30%	20	10	15	-	30
0.31% - 0.50%	30	20	20	-	30
0.51% - 1.00%	40	30	20	-	45
1.01% - 2.00%	50	40	-	10-0.50	45
2.01% - 4.00%	60	50	-	10+0.75	60
>4.00%	70	60	-	10+1.00	60

* Dyeing : Exhaustion : 30-60 min | * Temp. at : 60°C Fixation : 30-60 min

COLD PAD BATCH DYEING METHOD

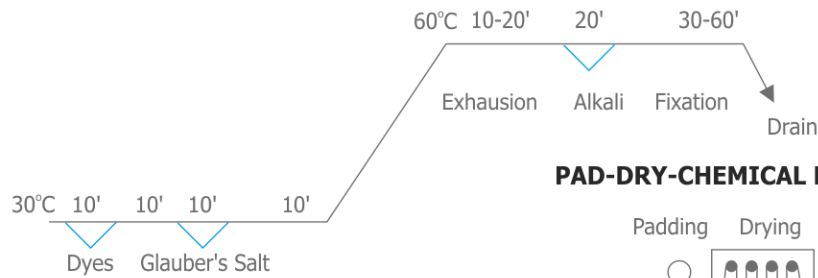
COLOR PADDING SOLUTION	Dyestuff	X	GPL
	Anti-migrating agent	1-2	GPL
	Urea	30-50	GPL
	Resist Salt	1	GPL

*Pad with 70% expression | *Dry the fabric at maximum 100 °C temp

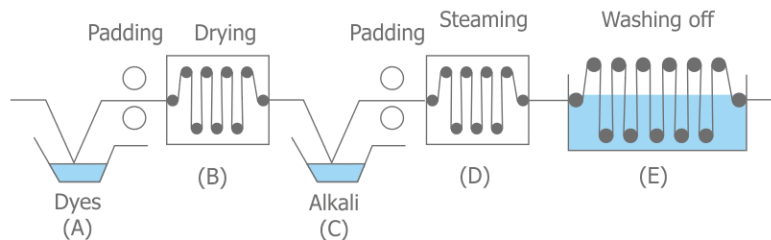
CHEMICAL PAD	Glauber Salt	150-250	GPL
	Soda Ash	15-20	GPL
	Caustic Flakes	2-4	GPL

*Pad with 70% expression | *Steam at 102 °C for 45-60 seconds.

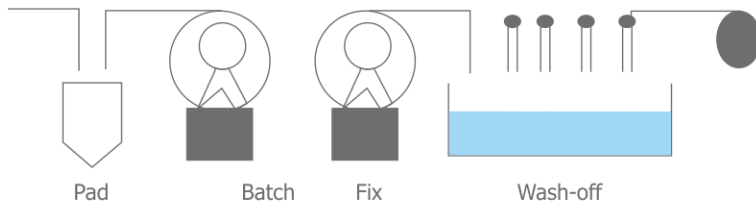
EXHAUST DYEING PROCESS DIAGRAM



PAD-DRY-CHEMICAL PAD-STEAM-DYING PROCESS DIAGRAM



COLD PAD BATCH - DYEING PROCESS DIAGRAM



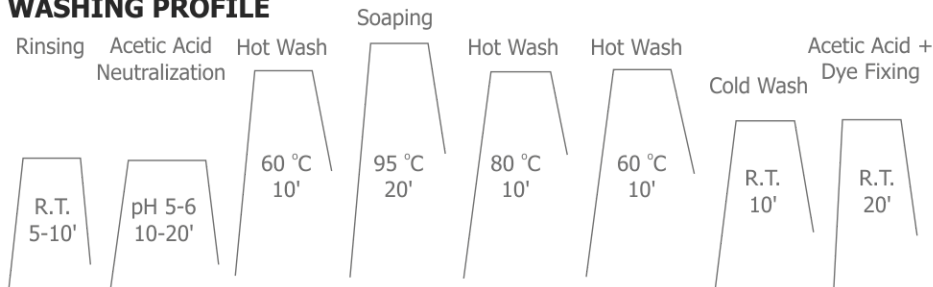
COLD PAD BATCH DYEING METHOD

DYE SOLUTION (PREPARED BELOW 25 °C) 4 PARTS	Dyestuff	X
	Urea	50-100 GPL
	Wetting & Rewetting Agent	1-2 GPL
	Sequestering Agent	1-2 GPL

SLICATE SOLUTION 1 PARTS	Sodium Silicate Na2O: SiO2 : 1:2:1 (110-120°Tw)	100 GPL
	Caustic Flakes	4-8 GPL

Pad & Keep for 16 hours, well covered and under constant rotation.

WASHING PROFILE



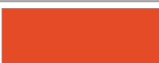
EGB DYES FEATURES

- BIFUNCTIONAL REACTIVE DYES WITH TWO REACTIVE GROUPS IN EACH MOLECULE.
- CAN ACHIEVE A WIDE RANGE OF SHADES FROM PALE TO MEDIUM, DEPENDING ON THE SPECIFIC DYE AND DYEING CONDITIONS.
- GOOD ALL-ROUND FASTNESS PROPERTIES, INCLUDING EXCELLENT LIGHT AND WET FASTNESS.
- SUITABLE FOR EXHAUST, CONTINUOUS AND PRINTING PROCESSES.
- CAN BE USED IN COMBINATION WITH OTHER DYES FOR VARIOUS EFFECTS.
- GOOD COMPATIBILITY WITH OTHER REACTIVE DYES AND CAN BE USED IN BLENDS WITH DISPERSE DYES.
- EXCELLENT BRIGHTNESS AND COLOR YIELD.
- HIGH SUBSTANTIVITY TO COTTON AND OTHER CELLULOSIC FIBERS.
- GOOD ALL-AROUND FASTNESS PROPERTIES INCLUDING LIGHT, WASHING, RUBBING AND PERSPIRATION.
- AVAILABLE IN A WIDE RANGE OF SHADES, INCLUDING BRIGHT AND VIBRANT COLORS.
- CAN BE USED FOR EXHAUST DYEING, CONTINUOUS DYEING AND PRINTING APPLICATIONS.
- ENVIRONMENTALLY FRIENDLY, WITH LOW WATER CONSUMPTION AND LOW EFFLUENT GENERATION DURING DYEING.
- GOOD COMPATIBILITY WITH OTHER TYPES OF DYESTUFFS AND CHEMICALS
- EXCELLENT STABILITY DURING STORAGE AND HANDLING
- SUITABLE FOR USE IN COMBINATION WITH OTHER TYPES OF DYES FOR ACHIEVING UNIQUE COLOR EFFECTS.

RR DYES

 OPTIMAKIMYA OPTIMUM CHEMISTRY REAZOL RR / EQ SERIES	Shade 2.0% o.w.f.	Solubility in g/l at 30 °C	Affinity	Reactivity	Fixation Temperature °C	Process Suitability				Dischargeability	Other Fastness		Light Fastness AATCC 16E			Post Fastness Properties			
						Exhaust	Cold Pad Batch	Printing	Continuous		Washing Fastness ISO 105 C04	Rubbing ISO 105/X12 Dry / Wet	0.1%	1.0%	2.0%	Water ISO 105 E01	Chlorinated Pool Water AATCC 162.2002	Hydrogen Peroxide	Perspiration ISO 105 E04 Acid / Alkali
Yellow RR		120	M	M	60	S	S	S	S	Good	4	4-5 4	4	4-5	4-5	4-5	3-5	4	4-5 4-5
Orange RR		100	M	M	60	S	S	S	S	Medium	3-4	4-5 3	3-5	3-5	4	3-4	3-4	4	4 4
Red RR		80	M	H	60	S	S	S	S	Poor	3-4	4-5 3	3-5	3-5	4	3-4	3-4	4	4 4
Blue RR		120	H	H	60	HS	S	S	S	Good	4	4-5 4	3	3-5	4	4	4	4	4-5 4-5

EQ DYES

Yellow EQ		120	M	M	60	HS	S	NS	S	Moderate	4	4-5 3-4	3	3-4	3-4	5	2-3	4	4-5 5-5
Deep Yellow EQ		120	M	M	60	HS	S	NS	S	Moderate	4	3 3-4	3	3-4	3-4	3-4	2-3	4	4-5 5-5
Red EQ		120	H	M	60	HS	S	NS	S	Moderate	3-4	4-5 3-4	3	4	3-4	5	3-4	3-4	5-5 5-5
Blue EQ		100	H	H	60	HS	S	NS	S	Good	3	4-5 4	3	3-4	3-4	5	2-3	4-5	4-5 4-5
Gray EQ		120	M	M	60	HS	S	NS	S	Good	4	5 4	3-4	4	4	5 5	3-4	4-5	5-5 4-5
Gold EQ		120	M	M	60	HS	S	NS	S	Moderate	4	4-5 3-4	3-4	3	4	5	3-4	4	5-5 4-5
Orange EQ		120	M	M	60	HS	S	NS	S	Moderate	3	4-5 3	3-4	3-4	4	5	3-4	3-4	4-5 4-5
Maroon EQ		120	M	M	60	HS	S	NS	S	Moderate	4	4-5 3	3-4	4	4	4-5	2-3	4	4-5 4-5
Navy EQ		120	M	M	60	HS	S	NS	S	Good	4-5	4-5 3	3-4	4	4	4-5	2-3	4	4 4-5
Pacific EQ		100	M	H	60	HS	S	NS	S	Good	4-5	5 3-4	3-4	4	4	5	2-3	4	5-5 5-5
Space EQ		100	L	H	60	HS	S	NS	S	Good	4-5	4 2-3	3-4	4	4	4-5	2-3	4	4-5 4-5
Black EQ		100	L	H	60	HS	S	NS	S	Good	4-5	4-5 4	3-4	4	4	4-5	2-3	4	4-5 4-5
Super Black EQ		100	L	H	60	HS	S	NS	S	Good	4-5	4-5 4	3-4	4	4	4-5	2-3	4	4-5 4-5

H - High | M - Medium | L - Low | HS - High Suitable | S - Suitable | LS - Low Suitable | NS - Not Suitable



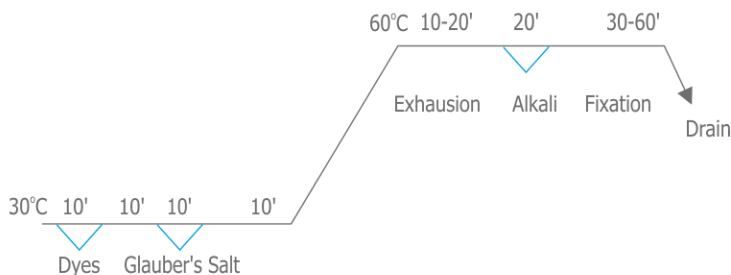
DYEING METHOD : EXHAUST DYEING

M:L Ratio - 1:10 | SALT & ALKALI REQUIREMENT

DEPTH OF SHADE	SODIUM CHLORIDE OR GLAUBER SALT		SODA ASH GPL	FIXATION (MINUTES) GPL	FIXATION (MINUTES)
	UNMERC. COTTON/KNITS	VISCOSE OR MERC. COTTON			
Upto 0.10%	10	7	10	-	30
0.11 - 0.30%	20	10	15	-	30
0.31% - 0.50%	30	20	20	-	30
0.51% - 1.00%	40	30	20	-	45
1.01% - 2.00%	50	40	-	10-0.75	45
2.01% - 4.00%	60	50	-	10+10	60
>4.00%	70	60	-	10+15	60

* Dyeing : Exhaustion : 30-60 min | * Temp. at : 60°C Fixation : 30-60 min

EXHAUST DYEING PROCESS DIAGRAM



COLD PAD BATCH DYEING METHOD

COLOR PADDING SOLUTION	Dyestuff	X	GPL
	Anti-migrating agent	1-2	GPL
	Urea	30-50	GPL
	Resist Salt	1	GPL

*Pad with 70% expression | *Dry the fabric at maximum 100 °C temp

CHEMICAL PAD	Glauber Salt	150-250	GPL
	Soda Ash	15-20	GPL
	Caustic Flakes	2-4	GPL

*Pad with 70% expression | *Steam at 102 °C for 45-60 seconds.

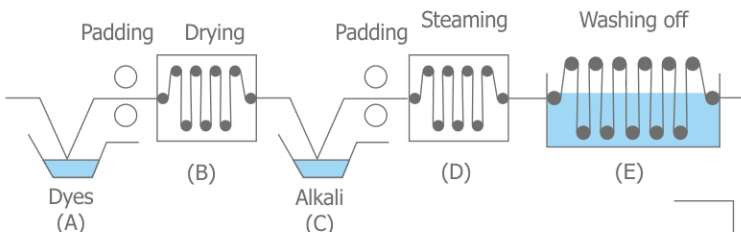
COLD PAD BATCH DYEING METHOD

DYE SOLUTION (PREPARED BELOW 25 °C) 4 PARTS	Dyestuff	X
	Urea	50-100 GPL
	Wetting & Rewetting Agent	1-2 GPL
	Sequestering Agent	1-2 GPL

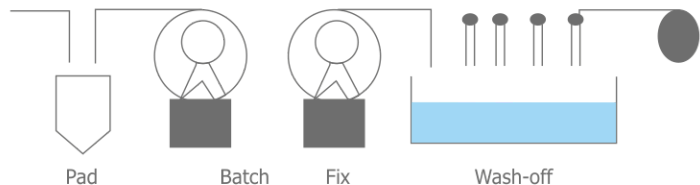
SLICATE SOLUTION 1 PARTS	Sodium Silicate Na2O: SiO2 : 1:2:1 (110-120°Tw)	100 GPL
	Caustic Flakes	4-8 GPL

Pad & Keep for 16 hours, well covered and under constant rotation.

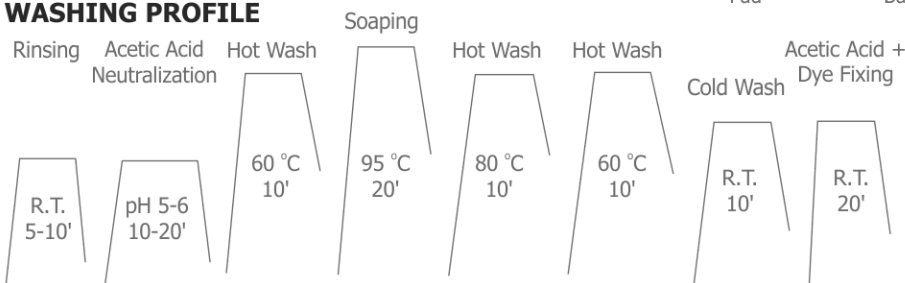
PAD-DRY-CHEMICAL PAD-STEAM-DYRING PROCESS DIAGRAM



COLD PAD BATCH - DYEING PROCESS DIAGRAM



WASHING PROFILE



RR DYES FEATURES

- EXCELLENT ALL-ROUND FASTNESS PROPERTIES, INCLUDING HIGH LIGHT FASTNESS AND GOOD WET FASTNESS.
- GOOD LEVELING AND MIGRATION PROPERTIES FOR UNIFORM DYEING.
- SUITABLE FOR A VARIETY OF DYEING METHODS, INCLUDING EXHAUST DYEING, CONTINUOUS DYEING AND PRINTING.
- CAN BE USED ON A RANGE OF SUBSTRATES, INCLUDING COTTON, VISCOSE AND THEIR BLENDS.
- OFFERS BRIGHT AND VIBRANT SHADES, WITH GOOD COLOR STRENGTH AND REPRODUCIBILITY.
- COMBINATIONS WITH OTHER DYE CLASSES CAN BE USED TO ACHIEVE DIFFERENT SHADES AND EFFECTS.
- NOT CLASSIFIED AS TRI-FUNCTIONAL DYES AS THEY DO NOT CONTAIN THREE REACTIVE GROUPS PER MOLECULE.
- TYPICALLY USED TO PRODUCE MEDIUM TO DARK SHADES BUT CAN ALSO BE USED FOR PALE SHADES WITH APPROPRIATE DYEING CONDITIONS AND FORMULATION.
- THESE DYES ARE KNOWN FOR THEIR EXCELLENT REPRODUCIBILITY IN A WIDE RANGE OF SHADES, INCLUDING PALE TO MEDIUM TRICHROMATIC SHADES.

EQ DYES FEATURES

- SUITABLE FOR EXHAUST, CONTINUOUS FND CONTINUOUS-CUM-EXHAUST PROCESSES.
- EXCELLENT ALL-AROUND FASTNESS PROPERTIES INCLUDING CHLORINE FASTNESS.
- GOOD LEVELLING AND MIGRATION PROPERTIES.
- HIGH FIXATION RATE AND GOOD REPRODUCIBILITY.
- CAN BE USED FOR DYEING A WIDE RANGE OF CELLULOSIC FIBERS SUCH AS COTTON, VISCOSE, MODAL AND LYOCCELL.
- LOW SENSITIVITY TO VARIATIONS IN DYEING CONDITIONS AND IMPURITIES IN THE WATER SUPPLY.
- PROVIDES BRIGHT AND VIBRANT SHADES, PARTICULARLY IN THE MEDIUM RANGE.
- COMBINATIONS WITH OTHER DYES ARE POSSIBLE TO ACHIEVE A BROADER SHADE RANGE.
- THESE DYES ARE CHARACTERIZED BY THEIR EXCELLENT BUILD-UP PROPERTIES, MAKING THEM SUITABLE FOR ACHIEVING DEEP AND DARK SHADES WITH HIGH COLOR YIELD.
- THEY ARE HIGHLY REACTIVE AND REQUIRE MILD DYEING CONDITIONS, MAKING THEM SUITABLE FOR USE ON DELICATE FIBERS LIKE SILK AND WOOL.
- THEY OFFER EXCELLENT FASTNESS PROPERTIES, INCLUDING LIGHTFASTNESS, WASHING FASTNESS AND CHLORINE FASTNESS.

S-W DYES

 OPTIMAKIMYA OPTIMUM CHEMISTRY REAZOL SW DYES SERIES	Shade 2.0% o.w.f.	Solubility in gpl at 30 °C	Affinity	Reactivity	Fixation Temperature °C	Process Suitability				Dischargeability	Other Fastness		Light Fastness AATCC 16E			Post Fastness Properties			
						Exhaust	Cold Pad Batch	Printing	Continuous		Washing Fastness ISO 105 C04	Rubbing ISO 105/X12 Dry / Wet	0.1%	1.0%	2.0%	Water ISO 105 E01	Chlorinated Pool Water AATCC 162.2002	Hydrogen Peroxide	Perspiration ISO 105 E04 Acid / Alkali
Lemon Yellow S3G		80	H	L	60	LS	S	S	NS	Moderate	4-5 4-5	4-5	4	4	4	4-5	3	4-5 4-5	4-5
Yellow S3R		150	H	L	60	HS	S	S	S	Poor	4 3-4	4-5	3	4	4	4	4-5	4-5	4 4
Orange S4R		150	H	M	60	HS	HS	S	S	Good	4-5 5	4-5	3	3-4	4	4-5	3-4	5	4-5 4-5
Orange W3R		150	H	M	60	HS	HS	S	S	Good	4-5 4	4-5	3	3-4	4	4-5	3-4	5	4-5 4-5
Deep Orange S4R		80	H	M	60	S	NS	LS	LS	Moderate	4-5 3-4	4	2-3	3	3-4	3-4	3-4	4	4 4
Red S2B		200	H	M	60	HS	HS	S	S	Moderate	4-5 4	4	3	3-4	4	4-5	4	4	4-5 4
Red SB		200	H	M	60	HS	HS	S	S	Moderate	4-5 4	4	3	3-4	4	4	4	4	4-5 4
Deep Red CD-ED		100	H	M	60	HS	HS	S	S	Good	4 3-4	4-5	3	3-4	3-4	4	3	3-4	4-5 4-5
Cherry Red SD		100	H	M	60	HS	HS	S	S	Good	4 3-4	4-5	3	3-4	3-4	4	3	3-4	4-5 4-5
Ruby S3B		150	M	M	60	HS	HS	S	S	Poor	4-5 4	4	3	3-4	3-4	4-5	4	3	4-5 4-5
Ocean SR		150	H	L	60	HS	LS	S	S	Moderate	4-5 4	4	3	3-4	3-4	4-5	4	3	4-5 4-5
DK Blue SGL		150	H	L	60	HS	LS	S	LS	Moderate	4-5 4	4-5	3-4	4	4	4-5	4	3	4-5 4-5
Navy EBXL		150	H	L	60	HS	HS	S	S	Good	4 3-4	4-5	3	3-4	3-4	4	5	4	5 5
Navy SGI		150	H	H	60	HS	HS	S	S	Good	4 3-4	4-5	3	3-4	3-4	4	5	4	5 5
Deep Night SR		250	H	M	60	HS	HS	S	S	Good	4 3-4	4	2-3	3	3	4	2	4	4-5 4-5
Super Black R		200	H	H	60	HS	HS	S	S	Good	4 3-4	4-5	-	3	3-4	4	3	4	4-5 4-5
Super Black G		200	H	H	60	HS	HS	S	S	Good	4 3-4	4-5	-	3	3-4	4	3	4	4-5 4-5
Black ENN		200	H	H	60	HS	HS	S	S	Good	4 3-4	4-5	-	3	3-4	4	3	4	4-5 4-5
Black WF		200	H	H	60	HS	HS	S	S	Good	4 3-4	4-5	-	3	3-4	4	3	4	4-5 4-5

H - High | M - Medium | L - Low | HS - High Suitable | S - Suitable | LS - Low Suitable | NS - Not Suitable

DYEING METHOD : EXHAUST DYEING

M:L Ratio - 1:10 | SALT & ALKALI REQUIREMENT

DEPTH OF SHADE	SODIUM CHLORIDE OR GLAUBER SALT		SODA ASH GPL	SODA + CAUSTIC GPL	FIXATION (MINUTES)
	UNMERC. COTTON/KNITS	VISCOSE OR MERC. COTTON			
Upto 0.10%	10	7	10	-	30
0.11 - 0.30%	20	10	15	-	30
0.31% - 0.50%	30	20	20	-	30
0.51% - 1.00%	40	30	20	-	45
1.01% - 2.00%	50	40	-	10-0.50	45
2.01% - 4.00%	60	50	-	10+0.75	60
>4.00%	70	60	-	10+1.00	60

* Dyeing : Exhaustion : 30-60 min | * Temp. at : 60°C Fixation : 30-60 min

COLD PAD BATCH DYEING METHOD

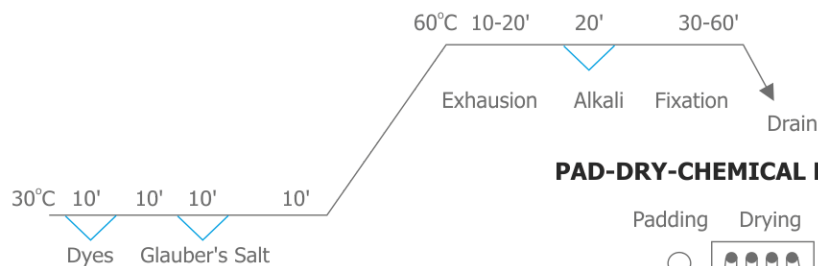
COLOR PADDING SOLUTION	Dyestuff	X	GPL
	Anti-migrating agent	1-2	GPL
	Urea	30-50	GPL
	Resist Salt	1	GPL

*Pad with 70% expression | *Dry the fabric at maximum 100 °C temp

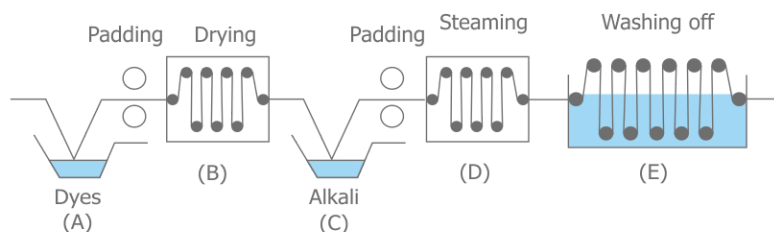
CHEMICAL PAD	Glauber Salt	150-250	GPL
	Soda Ash	15-20	GPL
	Caustic Flakes	2-4	GPL

*Pad with 70% expression | *Steam at 102 °C for 45-60 seconds.

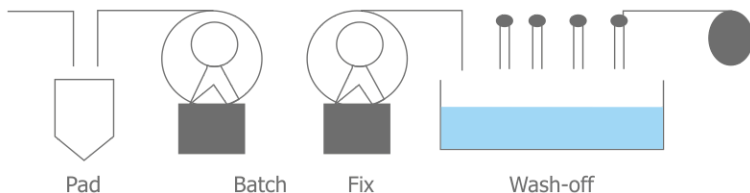
EXHAUST DYEING PROCESS DIAGRAM



PAD-DRY-CHEMICAL PAD-STEAM-DYING PROCESS DIAGRAM



COLD PAD BATCH - DYEING PROCESS DIAGRAM



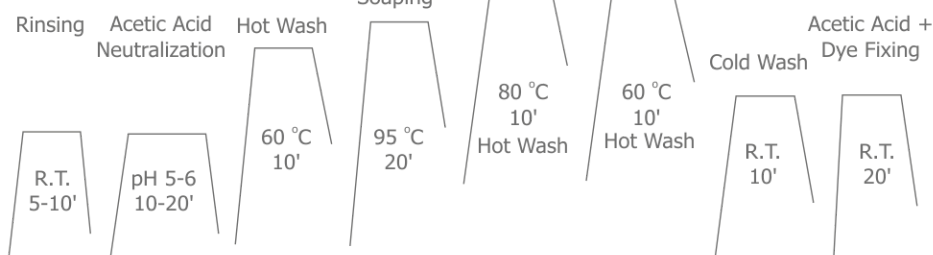
COLD PAD BATCH DYEING METHOD

DYE SOLUTION (PREPARED BELOW 25 °C) 4 PARTS	Dyestuff	X
	Urea	50-100 GPL
	Wetting & Rewetting Agent	1-2 GPL
	Sequestering Agent	1-2 GPL

SLICATE SOLUTION 1 PARTS	Sodium Silicate Na2O: SiO2 : 1:2:1 (110-120°Tw)	100 GPL
	Caustic Flakes	4-8 GPL

Pad & Keep for 16 hours, well covered and under constant rotation.

WASHING PROFILE



S-W DYES FEATURES

- **EXCELLENT FASTNESS PROPERTIES:** SHLOKKAZOL SW DYES OFFER EXCELLENT FASTNESS PROPERTIES, INCLUDING EXCELLENT LIGHT FASTNESS, WET FASTNESS AND RUBBING FASTNESS.
- **WIDE RANGE OF COLORS:** THE SHLOKKAZOL SW RANGE INCLUDES A WIDE RANGE OF BRIGHT AND VIBRANT COLORS, MAKING IT SUITABLE FOR A RANGE OF TEXTILE APPLICATIONS.
- **HIGH REACTIVITY:** SHLOKKAZOL SW DYES HAVE HIGH REACTIVITY AND OFFER EXCELLENT FIXATION RATES, RESULTING IN CONSISTENT AND REPRODUCIBLE DYEING AND PRINTING RESULTS.
- **GOOD SOLUBILITY:** THESE DYES HAVE GOOD SOLUBILITY IN WATER, WHICH MAKES THEM EASY TO WORK WITH IN A RANGE OF DYEING AND PRINTING PROCESSES.
- **SUITABLE FOR A RANGE OF SUBSTRATES:** SHLOKKAZOL SW DYES ARE SUITABLE FOR USE ON A RANGE OF SUBSTRATES, INCLUDING CELLULOSIC FIBERS SUCH AS COTTON AND VISCOSE AS WELL AS WOOL AND SILK.
- **LOW SALT CONTENT:** THE DYES HAVE A LOW SALT CONTENT WHICH MAKES THEM MORE ENVIRONMENTALLY FRIENDLY AND REDUCES THE AMOUNT OF SALT REQUIRED FOR DYEING.
- **PALE TO MEDIUM SHADES:** SHLOKKAZOL SW DYES ARE PRIMARILY USED FOR PRODUCING PALE TO MEDIUM SHADES BUT CAN ALSO BE USED FOR PRODUCING DEEPER SHADES WITH THE USE OF ADDITIONAL DYES.
- **COMBINATION PROPERTIES:** THE DYES HAVE GOOD COMBINATION PROPERTIES AND CAN BE USED IN COMBINATION WITH OTHER DYES TO PRODUCE A RANGE OF SHADES AND HUES.

EX-D DYES

 OPTIMAKIMYA OPTIMUM CHEMISTRY REAZOL EX-D / EX DYES SERIES	Shade 0.5% o.w.f.	Solubility in gpl at 30 °C	Affinity	Reactivity	Fixation Temperature °C	Process Suitability				Dischargeability	Other Fastness		Light Fastness AATCC 16E			Post Fastness Properties			
						Exhaust	Cold Pad Batch	Printing	Continuous		Washing Fastness ISO 105 C04	Rubbing ISO 105/X12 Dry / Wet	0.1%	1.0%	2.0%	Water ISO 105 E01	Chlorinated Pool Water AATCC 162.2002	Hydrogen Peroxide	Perspiration ISO 105 E04 Acid / Alkali
Yellow EX-D		150	H	M	60	HS	HS	S	S	Moderate	4-5	4-5 3-4	4	4	4-5	4	4	4	4
Red EX-D		150	M	M	60	HS	HS	S	S	Poor	4-5	4 4	3	3-4	4	4	4	1	4-5 4-5
Blue EX-D		100	H	L	60	HS	S	S	LS	Moderate	4-5	4 4	4	4	4	4	1	2	4- 4-5

EX DYES

Lemon Yellow EX		100	M	M	60	HS	HS	S	S	Moderate	4-5	4-5 3	- 4-5	- 4	4	-	4-5	-	4-5 3
Yellow EX		150	H	M	60	HS	HS	S	S	Moderate	4-5	4-5 3-4	4	4	4-5	4	4	-	4-5 3
Orange EX		100	M	H	60	HS	HS	S	S	Moderate	4-5	4-5 3-4	- 4-5	- 4-5	4	-	4-5	-	4-5 2-3
Scarlet EX		100	M	M	60	HS	HS	S	S	Moderate	4	4-5 3	- 4-5	- 4	4	-	4-5	-	4-5 3-4
Red EX		100	M	M	60	HS	HS	S	S	Low	4-5	4-5 3	- 3-4	- 4-5	4	-	4-5	-	4-5 3-4
Brill Red EX		100	M	H	60	HS	HS	S	S	Moderate	4-5	4-5 3-4	- 3-4	- 4	4	-	4-5	-	4-5 3
Navy Blue EX		100	M	H	60	HS	HS	S	S	High	4	4-5 5	- 4-5	- 4	4	-	4-5	-	4-5 4-5
Blue EX		100	M	H	60	HS	HS	S	S	Low	4	4-5 5	- 4	- 4-5	4	-	4-5	-	4 4-5
Royal Blue EX		100	M	M	60	HS	HS	S	S	Low	4-5	4-5 5	- 4-5	- 4-5	4-5	-	4-5	-	4-5 4

H - High | **M** - Medium | **L** - Low | **HS** - High Suitable | **S** - Suitable | **LS** - Low Suitable | **NS** - Not Suitable

DYEING METHOD : EXHAUST DYEING

M:L Ratio - 1:10 | SALT & ALKALI REQUIREMENT

DEPTH OF SHADE	SODIUM CHLORIDE OR GLAUBER SALT		SODA ASH	SODA + CAUSTIC	FIXATION (MINUTES)
	UNMERC. COTTON/KNITS	VISCOSE OR MERC. COTTON			
4.00%	70	60	-	10 + 1.5	60
5.00%	70	60	-	10 + 2.5	60
>6.00%	70	60	-	15 + 1.5	60

* Dyeing : Exhaustion : 30-60 min | * Temp. at : 60°C Fixation : 30-60 min

COLD PAD BATCH DYEING METHOD

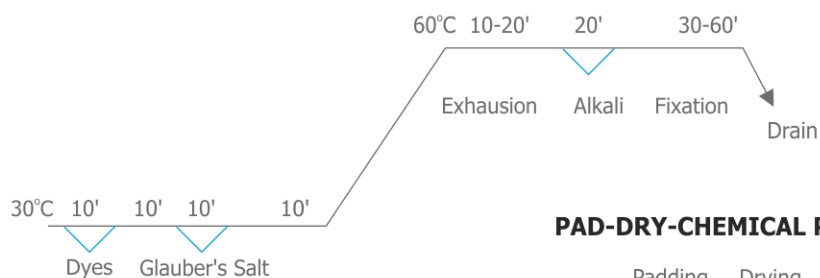
COLOR PADDING SOLUTION	Dyestuff	X	GPL
	Anti-migrating agent	1-2	GPL
	Urea	30-50	GPL
	Resist Salt	1	GPL

*Pad with 70% expression | *Dry the fabric at maximum 100 °C temp

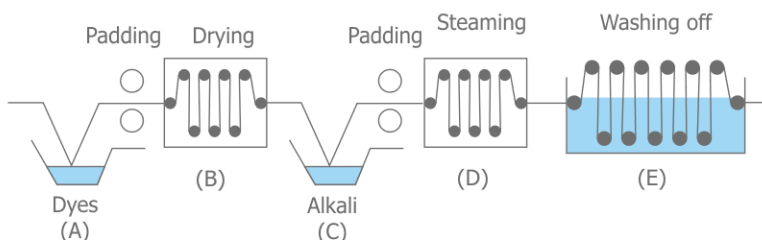
CHEMICAL PAD	Glauber Salt	150-250	GPL
	Soda Ash	15-20	GPL
	Caustic Flakes	2-4	GPL

*Pad with 70% expression | *Steam at 102 °C for 45-60 seconds.

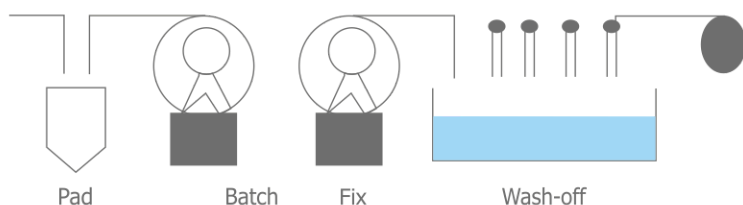
EXHAUST DYEING PROCESS DIAGRAM



PAD-DRY-CHEMICAL PAD-STEAM-DYING PROCESS DIAGRAM



COLD PAD BATCH - DYEING PROCESS DIAGRAM

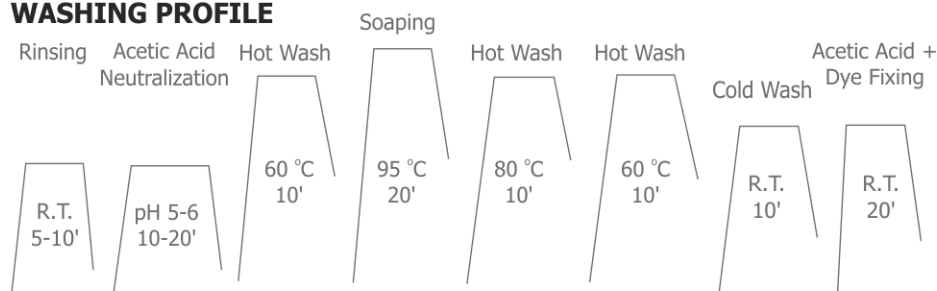


COLD PAD BATCH DYEING METHOD

DYE SOLUTION (PREPARED BELOW 25 °C) 4 PARTS	Dyestuff	X
	Urea	50-100 GPL
	Wetting & Rewetting Agent	1-2 GPL
	Sequestering Agent	1-2 GPL
SLICATE SOLUTION 1 PARTS	Sodium Silicate Na2O: SiO2 : 1:2:1 (110-120°Tw)	100 GPL
	Caustic Flakes	4-8 GPL

Pad & Keep for 16 hours, well covered and under constant rotation.

WASHING PROFILE



EX DYES FEATURES

- EXCELLENT ALL-AROUND FASTNESS PROPERTIES, INCLUDING GOOD LIGHT FASTNESS AND EXCELLENT WET FASTNESS.
- HIGH REACTIVITY AND FIXATION RATES, RESULTING IN GOOD REPRODUCIBILITY AND HIGH COLOR YIELD.
- SUITABLE FOR A WIDE RANGE OF APPLICATIONS, INCLUDING EXHAUST DYEING, PAD-BATCH DYEING AND CONTINUOUS DYEING PROCESSES.
- CAN BE USED ON A VARIETY OF FIBERS, INCLUDING COTTON, VISCOSE AND LINEN.
- GOOD COMPATIBILITY WITH OTHER DYES, ALLOWING FOR THE CREATION OF A WIDE RANGE OF SHADES AND COLOR COMBINATIONS.
- LOW SALT AND ALKALI REQUIREMENTS, REDUCING ENVIRONMENTAL IMPACT AND PROCESSING COSTS.
- EXCELLENT LEVELING AND MIGRATION PROPERTIES, RESULTING IN EVEN DYEING AND CONSISTENT COLORATION.

EX-D DYES FEATURES

- SHLOKAZOL EX-D SERIES DYES HAVE HIGH REACTIVITY AND EXCELLENT FIXATION PROPERTIES, RESULTING IN DEEP AND BRIGHT SHADES.
- THESE DYES HAVE GOOD LIGHT AND WASHING FASTNESS PROPERTIES, ENSURING THAT THE COLOR DOES NOT FADE EASILY.
- SHLOKAZOL EX-D SERIES DYES HAVE A WIDE RANGE OF COMPATIBILITY WITH VARIOUS PRINTING AND DYEING PROCESSES SUCH AS EXHAUST DYEING, PAD DYEING AND CONTINUOUS DYEING.
- THESE DYES ARE HIGHLY SOLUBLE IN WATER AND HAVE GOOD STABILITY IN ALKALINE CONDITIONS, WHICH HELPS IN MAINTAINING THE DYEING QUALITY AND PREVENTING THE DYE FROM HYDROLYZING.
- SHLOKAZOL EX-D SERIES DYES ARE SUITABLE FOR USE IN A VARIETY OF SHADES FROM PALE TO MEDIUM AND CAN BE COMBINED WITH OTHER DYES TO ACHIEVE DIFFERENT COLOR COMBINATIONS.
- THESE DYES ARE ECO-FRIENDLY AND COMPLY WITH ENVIRONMENTAL AND HEALTH REGULATIONS.

SS DYES

 OPTIMAKIMYA OPTIMUM CHEMISTRY REAZOL SS / SPD DYES SERIES	Shade 2.0% o.w.f.	Solubility in gpl at 30 °C	Affinity	Reactivity	Fixation Temperature °C	Process Suitability				Dischargeability	Other Fastness		Light Fastness AATCC 16E			Post Fastness Properties			
						Exhaust	Cold Pad Batch	Printing	Continuous		Washing Fastness ISO 105 C04	Rubbing ISO 105/X12 Dry / Wet	0.1%	1.0%	2.0%	Water ISO 105 E01	Chlorinated Pool Water AATCC 162.2002	Hydrogen Peroxide	Perspiration ISO 105 E04 Acid / Alkali
Yellow SS		100	H	M	60	HS	LS	S	S	Good	4-5	4-5 3-4	4	4	4-5	4	4	-	4 4
Orange SS		100	M	M	60	HS	LS	S	S	Good	4-5	4 4	3	3-4	4	4	4	-	4-5 4-5
Red SS		100	M	M	60	HS	LS	S	S	Poor	4-5	4	3	3	3-4	4	1	-	4-5
Rubine SS		100	M	M	60	HS	LS	S	S	Good	4-5	4-5 3	4	-	-	4-5	4	-	4-5 4-5
DK Blue SS		100	M	M	60	HS	LS	S	S	Good	4-5	4-5 3	4	-	-	4-5	3-4	-	4-5 4-5
Navy Blue SS		100	M	M	60	HS	LS	S	S	Good	4-5	4-5 3	3	-	-	4-5	3	-	4-5 4-5

SPD DYES

Yellow SPD		150	H	M	60	HS	HS	S	S	Moderate	4-5	4-5 3-4	4	4	4-5	4	4	4	4 4
Red SPD		150	M	M	60	HS	HS	S	S	Poor	4-5	4	3	3-4	4	4	4	1	4-5 4
Blue SPD		100	H	L	60	HS	S	S	LS	Moderate	4-5	4	4	4	4	4	1	2	4-5 4-5

H - High | **M** - Medium | **L** - Low | **HS** - High Suitable | **S** - Suitable | **LS** - Low Suitable | **NS** - Not Suitable

DYEING METHOD : EXHAUST DYEING

M:L Ratio - 1:10 | SALT & ALKALI REQUIREMENT

DEPTH OF SHADE	SODIUM CHLORIDE OR GLAUBER SALT		SODA ASH	SODA + CAUSTIC GPL	FIXATION (MINUTES)
	UNMERC. COTTON/KNITS	VISCOSE OR MERC. COTTON			
4.00%	70	60	-	10 + 1.5	60
5.00%	70	60	-	10 + 2.5	60
>6.00%	70	60	-	15 + 1.5	60

* Dyeing : Exhaustion : 30-60 min | * Temp. at : 60°C Fixation : 30-60 min

COLD PAD BATCH DYEING METHOD

COLOR PADDING SOLUTION	Dyestuff	X	GPL
	Anti-migrating agent	1-2	GPL
	Urea	30-50	GPL
	Resist Salt	1	GPL

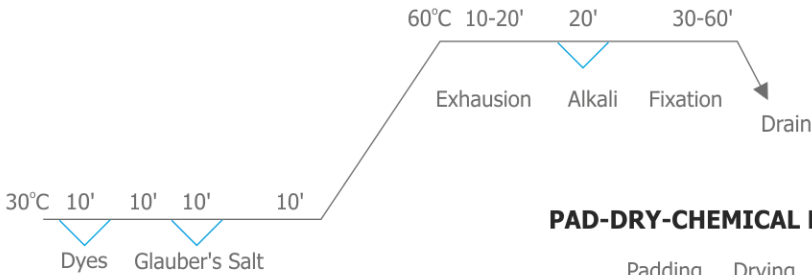
*Pad with 70% expression | *Dry the fabric at maximum 100 °C temp

CHEMICAL PAD	Glauber Salt	150-250	GPL
	Soda Ash	15-20	GPL
	Caustic Flakes	2-4	GPL

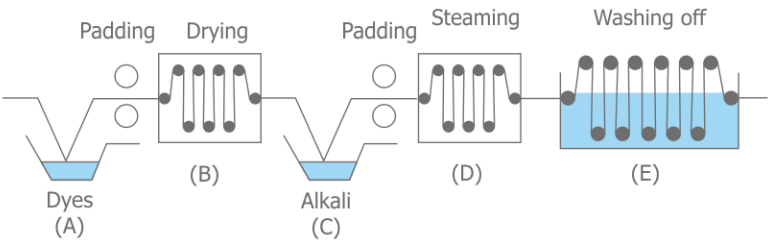
*Pad with 70% expression | *Steam at 102 °C for 45-60 seconds.



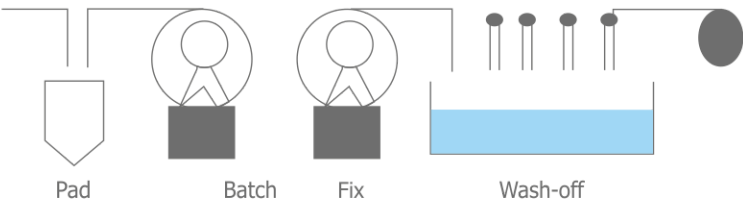
EXHAUST DYEING PROCESS DIAGRAM



PAD-DRY-CHEMICAL PAD-STEAM-DYRING PROCESS DIAGRAM



COLD PAD BATCH - DYEING PROCESS DIAGRAM

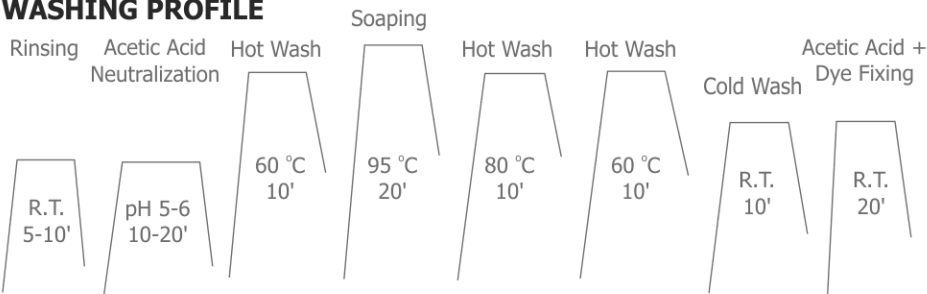


COLD PAD BATCH DYEING METHOD

DYE SOLUTION (PREPATED BELOW 25 °C) 4 PARTS	Dyestuff	X
	Urea	50-100 GPL
	Wetting & Rewetting Agent	1-2 GPL
	Sequestering Agent	1-2 GPL
SLICATE SOLUTION 1 PARTS	Sodium Silicate Na2O: SiO2 : 1:2:1 (110-120°Tw)	100 GPL
	Caustic Flakes	4-8 GPL

Pad & Keep for 16 hours, well covered and under constant rotation.

WASHING PROFILE



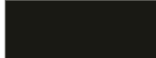
SPD DYES FEATURES

- HIGH EXHAUSTION RATE AND FIXATION RATE
- GOOD WASH FASTNESS AND RUBBING FASTNESS
- SUITABLE FOR A WIDE RANGE OF DYEING AND PRINTING METHODS SUCH AS EXHAUST DYEING, CONTINUOUS DYEING AND PRINTING
- LOW SALT CONTENT AND LOW SENSITIVITY TO PH VARIATIONS
- GOOD COMPATIBILITY WITH OTHER DYES, ALLOWING FOR EASY COMBINATION DYEING AND PRINTING
- GOOD LEVELING PROPERTIES, RESULTING IN EVEN DYEING AND PRINTING
- BRIGHT AND VIBRANT SHADES, RANGING FROM PALE TO MEDIUM SHADES
- ENVIRONMENTALLY FRIENDLY, AS IT MEETS GLOBAL ECO-STANDARDS AND REGULATIONS.

SS DYES FEATURES

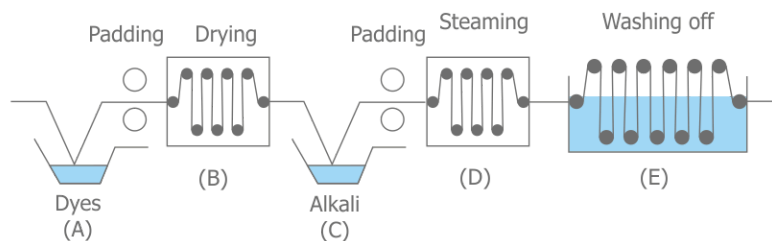
- SUITABLE FOR DYEING AND PRINTING ON COTTON, VISCOSE AND OTHER CELLULOSIC FIBERS.
- GOOD DYEING PROPERTIES WITH EXCELLENT REPRODUCIBILITY AND HIGH FIXATION RATE.
- HIGH COLOR YIELD WITH BRIGHT AND VIBRANT SHADES.
- GOOD LIGHT FASTNESS, WASHING FASTNESS AND RUBBING FASTNESS.
- CAN BE APPLIED USING EXHAUST, CONTINUOUS AND PAD-BATCH METHODS.
- SUITABLE FOR DYEING AND PRINTING AT LOW TO MEDIUM SHADES.
- BI-FUNCTIONAL AND MULTI-FUNCTIONAL DYES WITH GOOD COMBINATION PROPERTIES.

BLACK DYES

 REAZOL BLACK DYES SERIES	Shade 2.0% o.w.f.	Solubility in gpl at 30 °C	Affinity	Reactivity	Fixation Temperature °C	Process Suitability				Dischargeability	Other Fastness		Light Fastness AATCC 16E			Post Fastness Properties			
						Exhaust	Cold Pad Batch	Printing	Continuous		Washing Fastness ISO 105 C04	Rubbing ISO 105/X12 Dry / Wet	0.1%	1.0%	2.0%	Water ISO 105 E01	Chlorinated Pool Water AATCC 162.2002	Hydrogen Peroxide	Perspiration ISO 105 E04 Acid / Alkali
Black GDNN		200	H	M	60	S	S	S	S	Good	4	4 4	3	3-4	4	4	2	4	4 4-5
Black DCI		200	H	M	60	S	S	S	S	Good	4	4 4	3	3-4	4	4	2	4	4 4-5
Black ENN		200	H	M	60	S	S	S	S	Good	4	4 4	3	3-4	4	4	2	4	4 4-5
Black ENN Conc		200	H	M	60	S	S	S	S	Good	4	4 4	3	3-4	4	4	2	4	4 4-5
Black EX		200	H	M	60	HS	HS	S	S	Good	4	4 3-4	-	-	3	3	2	3-4	4 4-5
Black WF		200	H	M	60	HS	HS	S	S	Good	4	4 3-4	-	-	3-4	3	2	3-4	4 4-5
Black WF Conc		200	H	M	60	HS	HS	S	S	Good	4	4 3-4	-	-	3-4	3	2	3-4	4 4-5
Black BNC		200	H	M	60	S	S	S	S	Good	4	4 4	3	3-4	4	4	2	4	4 4-5
Super Black R		200	H	M	60	S	S	S	S	Good	4	4 4	3	3-4	4	4	2	4	4 4-5
Black EXLW		200	H	M	60	S	S	S	S	Good	4	4 4	3	3-4	4	4	2	4	4 4-5
Super Black G		200	H	M	60	S	S	S	S	Good	4	4 4	3	3-4	4	4	2	4	4 4-5
Deep Black EGBN		200	H	M	60	S	S	S	S	Good	4	4 4	3	3-4	4	4	2	4	4 4-5

H - High | **M** - Medium | **L** - Low | **HS** - High Suitable | **S** - Suitable | **LS** - Low Suitable | **NS** - Not Suitable

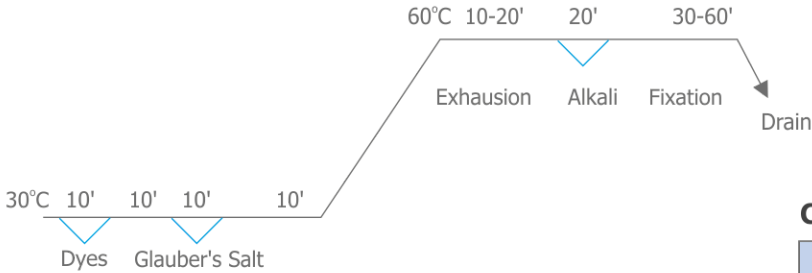
PAD-DRY-CHEMICAL PAD-STEAM-DYRING PROCESS DIAGRAM



CHEMICAL PAD	Glauber Salt	150-250	GPL
	Soda Ash	15-20	GPL
	Caustic Flakes	2-4	GPL

*Pad with 70% expression | *Steam at 102 °C for 45-60 seconds.

EXHAUST DYEING PROCESS DIAGRAM

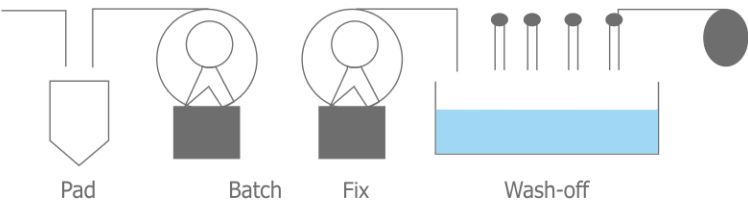


COLD PAD BATCH DYEING METHOD

COLOR PADDING SOLUTION	Dyestuff	X	GPL
	Anti-migrating agent	1-2	GPL
	Urea	30-50	GPL
	Resist Salt	1	GPL

*Pad with 70% expression | *Dry the fabric at maximum 100 °C temp

COLD PAD BATCH - DYEING PROCESS DIAGRAM

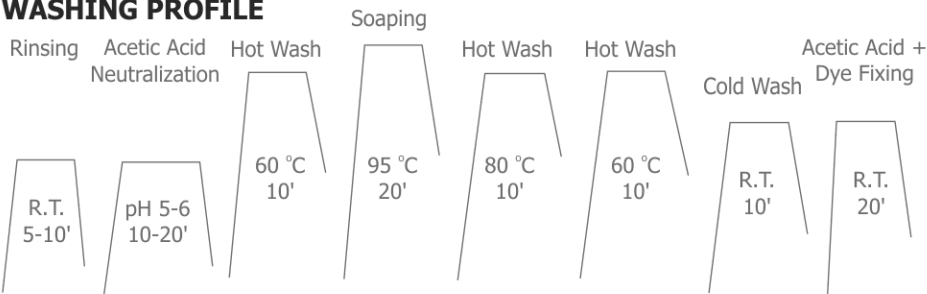


COLD PAD BATCH DYEING METHOD

DYE SOLUTION (PREPATED BELOW 25 °C) 4 PARTS	Dyestuff	X
	Urea	50-100 GPL
	Wetting & Rewetting Agent	1-2 GPL
	Sequestering Agent	1-2 GPL
SLICATE SOLUTION 1 PARTS	Sodium Silicate Na2O: SiO2 : 1:2:1 (110-120°Tw)	100 GPL
	Caustic Flakes	4-8 GPL

Pad & Keep for 16 hours, well covered and under constant rotation.

WASHING PROFILE



BLACK DYES FEATURES

- HIGH AFFINITY FOR CELLULOSE FIBERS, LEADING TO EXCELLENT COLOR YIELD AND DEPTH
- GOOD FASTNESS PROPERTIES, INCLUDING WASHING, RUBBING, LIGHT AND PERSPIRATION FASTNESS
- SUITABLE FOR A RANGE OF DYEING METHODS, INCLUDING EXHAUST, CONTINUOUS AND BATCH PROCESSES
- TYPICALLY CONTAIN A COMBINATION OF DIFFERENT REACTIVE DYE CLASSES, SUCH AS MONOCHLOROTRIAZINE, VINYL SULFONE AND BIFUNCTIONAL DYES, TO ACHIEVE THE DESIRED SHADE AND PERFORMANCE PROPERTIES
- CAN BE USED ALONE OR IN COMBINATION WITH OTHER DYES TO CREATE DIFFERENT SHADES AND EFFECTS
- THE EXACT PROPERTIES AND FEATURES CAN VARY DEPENDING ON THE SPECIFIC COMPOSITION OF THE BLACK MIXTURE AND THE APPLICATION METHOD USED.
- HIGH COLOR YIELD AND EXCELLENT DYEING FASTNESS PROPERTIES
- SUITABLE FOR A WIDE RANGE OF CELLULOSIC FIBERS, SUCH AS COTTON, RAYON AND LINEN
- GOOD COMPATIBILITY WITH OTHER REACTIVE DYES FOR PRODUCING MULTI-COLOR EFFECTS
- ENVIRONMENTALLY FRIENDLY, AS THEY DO NOT CONTAIN HEAVY METALS OR OTHER HAZARDOUS CHEMICALS
- CAN PRODUCE A RANGE OF SHADES, FROM DEEP BLACK TO DARK GRAY OR BROWN, DEPENDING ON THE SPECIFIC MIXTURE AND DYEING CONDITIONS
- CAN BE USED FOR A VARIETY OF TEXTILE APPLICATIONS, SUCH AS GARMENTS, HOME TEXTILES AND INDUSTRIAL TEXTILES.

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