SEGAZOL SERIES

REACTIVE DYES

The economic
package of standard
reactive dyes for cellulose

SEGA GROUP
CHEMICALS & DYES

www.segagroup.com.tr

We discover the

color

of the world !

ABOUT US

SEGA GROUP CHEMICALS joined the **"World of Textiles"** in the year 2019. Sega Group is a company that aims to be a leader in it. Sega Group, which continues its research and development activities in line with the developing technology and aims to always progress open to development with its active staff, started to make a difference with its product quality price ratio in a very short time. It offers rational and practical solutions for needs with its ever-growing product range. **Sega Group**, was able to announce only the name is not in Turkey and in many foreign countries have proved the quality of products.

Having a creative and dynamic working approach, **SEGA GROUP** continues to exist in line with its skilled human resources, strong technical infrastructure and correct financial management skills. Sega Group, which brings identity to the chemical industry and textile, maintains and continues to maintain our place among the leading companies in the industry with customer satisfaction, innovation and fast service.

Acting fast, accompanied by our experts, we respond to the questions and problems of our customers in the fastest way, while providing mutual benefits to our customers by providing project collaborations to gain an advantage over their competitors.

Our vision is to expand our world market with our product quality as a leading company sought worldwide in line with our global and innovative solutions for the production and supply of chemical products.

Our mission is to be an innovative and environmentally friendly company that provides world-class service by discovering solutions that focus on the changing needs of our customers.

We are leading new approaches in Sega Group to help companies access quality textile chemicals.

- Customer oriented principle
- Supporting with knowledge and innovation
- Increasing the competitiveness of our brand and business partners

Attaching importance to ethical values such as Accuracy, Equality, and Reliability,

We are a CHEMICAL company that works for a sustainable future.

SEGAZOL DYES

The economical package of standard reactive dyes for cellulose

	Solubility/l	Dischargeability	Light		Washing 60°C	Water	Chlorine washing	Perspiration Fastness		Chlorinated Water	Dyeing Methods	
			ISO	AT - TCC				Acid	Alkaline			
	25°C	1/1 1/6	1/1 1/6		CC CO CV	CC CO PA	CC	CC CO PA	CC CO PA	20 ppm	Exhaust°C	Cold Pad Batch Pad-Dry-Pad-Steam Pad-Dry-Thermofix
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Yellow 4GL	50	+ +	4 3-4	4 4	4-5 5 4-5	5 4-5 5	3-4	4-5 5 5	4-5 5 5	3	60/80	(+) - (+)
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Yellow 3RF Conc	100	- +	6 5-6	5-6 5	4-5 4-5 4-5	5 5 5	4-5	5 5 5	5 5 5	4-5	60/80	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Yellow 3RF	100	- +	5-6 5	5 4-5	4-5 4-5 4-5	5 5 5	4-5	5 5 5	5 5 5	4-5	60/80	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Golden Yellow SBG	100	+ +	5-6 4-5	5 4-5	4-5 5 5	4-5 5 5	1	4-5 5 5	4-5 5 5	1-2	50/60	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Golden Yellow RNL	100	+ +	6 5	5 4-5	4-5 4-5 4-5	5 5 5	1	5 5 5	5 5 5	4	60/80	+ + (+)
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Golden Yellow RR	100	+ +	5 4-5	4-5 4-5	4-5 4-5 4-5	5 5 5	3-4	5 5 5	5 5 5	3-4	50/60	+ + (+)
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Orange 2RL	50	+ (+)	4 3-4	3-4 4	4-5 4 4-5	4-5 5 5	4-5	4-5 5 5	4-5 5 5	4-5	60/80	- - -
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Orange SBG	100	(+) +	4-5 4-5	4-5 4	4-5 5 5	5 5 5	3-4	4-5 5 5	4-5 5 5	3-4	50/60	+ + +

SEGAZOL DYES

The economical package of standard reactive dyes for cellulose

	Solubilityng/l	Dischargeability	Light		Washing 60°C	Water	Chlorine washing	Perspiration Fastness		Chlorinated Water	Dyeing Methods	
			ISO	AT - TCC				Acid	Alkaline			
	25°C	1/1 1/6	1/1 1/6		CC CO CV	CC CO PA	CC	CC CO PA	CC CO PA	20 ppm	Exhaust°C	Cold Pad Batch Pad-Dry-Pad-Steam Pad-Dry-Thermofix
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Scarlet 2GF	100	(+) +	5 3-4	4-5 3	4-5 5 4-5	5 4-5 5	4	4-5 5 5	4-5 5 5	4-5	50/60 /80	(+) (+) (+)
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Red 3GX	100	- -	5 4-5	4-5 4	4-5 4-5 4-5	5 4-5 4-5	4-5	5 4-5 5	5 4 5	4-5	60/80	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Red SE3BL	60	- (+)	5 4	4-5 4	4-5 4-5 4-5	5 4-5 5	4	5 4-5 4-5	5 4-5 4-5	4-5	60/80	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Red 3BF	100	- +	6 5-6	5 5	5 4-5 4-5	5 5 5	4-5	5 4-5 5	4 4-5 5	4-5	50/60 /80	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Red 3BF Conc	100	+ +	5 4-5	4 4	4-5 4-5 4-5	5 4-5 5	4-5	5 4 4-5	5 4 4-5	4-5	60/80	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Red BS	100	+ +	4-5 3-4	4 3-4	4-5 4-5 5	5 5 5	4	5 5 5	5 5 5	4-5	60/80	+ + (+)
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Red RB	100	- -	4-5 4	4 3-4	4-5 4-5 4-5	4-5 5 5	2-3	4-5 5 5	4-5 5 5	3-4	50/60 /80	+ + (+)
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Red SBG	100	- +	4-5 4	4 3-4	4-5 5 5	4-5 5 5	3-4	4-5 5 5	4-5 5 5	3-4	50/60	+ + +

SEGAZOL DYES

The economical package of standard reactive dyes for cellulose

	Solubility g/l	Dischargeability	Light		Washing 60°C	Water	Chlorine washing	Perspiration Fastness		Chlorinated Water	Dyeing Methods	
			ISO	AT - TCC				Acid	Alkaline			
	25°C	1/1 1/6	1/1 1/6		CC CO CV	CC CO PA	CC	CC CO PA	CC CO PA	20 ppm	Exhaust°C	Cold Pad Batch Pad-Dry-Pad-Steam Pad-Dry-Thermofix
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Deep Red CD	1 00	+ +	4-5 4	4-5 4	5 4 4	4-5 4-5 4-5	3	4-5 5 5	4-5 5 5	4-5	50/60 /80	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Violet 5R	100	- +	6-7 6	5-6 5	4-5 4-5 4-5	5 5 5	4-5	5 5 5	3-4 55	4-5	50/60	+ + -
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Blue BB	100	- +	6-7 6	6 4-5	4-5 5 5	4-5 5 5	3-4	4-5 5 5	4-5 5 5	4	60/80	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Blue BRF	100	- +	6-7 6	5-6 5	4-5 4-5 4-5	5 4-5 5	2	5 4-5 5	5 4-5 4-5	3	60/80	(+) (+) (+)
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Blue R SP	100	- +	7 6	5-6 5	5 5 4-5	5 5 5	3-4	5 5 5	5 5 5	4	50/60	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Blue SBG	100	- +	6-7 6	6 5-6	5 4-5 5	5 5 5	2-3	4-5 5 5	4-5 5 5	3-4	50/60	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Turq Blue G 266%	50	- +	6 5	5 4-5	4-5 4 4-5	5 5 5	2-3	4-5 5 5	5 5 5	3-4	60/80	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Royal S-B	100	– –	5-6 5	5 4-5	4 4-5 5	4-5 5 5	2	4-5 5 5	4-5 5 5	2-3	50/60	+ + +

SEGAZOL DYES

The economical package of standard reactive dyes for cellulose

	Solubility/l	Dischargeability	Light		Washing 60°C	Water	Chlorine washing	Perspiration Fastness		Chlorinated Water	Dyeing Methods	
			ISO	AT - TCC				Acid	Alkaline			
	25°C	1/1 1/6	1/1 1/6		CC CO CV	CC CO PA	CC	CC CO PA	CC CO PA	20 ppm	Exhaust°C	Cold Pad Batch Pad-Dry-Pad-Steam Pad-Dry-Thermofix
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Navy Blue BF	100	+ +	4-5 4	4 3	4-5 5 5	4-5 5 5	2-3	4-5 5 5	4-5 5 5	3-4	50/60 /80	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Navy Blue SBG	100	+ +	4-5 4	4 3	4-5 5 5	4-5 4-5 4-5	2	4-5 5 5	4-5 5 5	3-4	50/60	+ + +
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Navy Blue GG	100	+ +	4-5 3-4	3-4 3	4-5 4-5 4-5	4-5 5 5	2-3	4-5 5 5	4-5 4-5 5	3-4	50/60	+ + (+)
0.25% 0.5% 1.0% 2.0% 4.0%												
SEGAZOL Dark Blue SBG	100	(+) +	6 4-6	4-5 4	4-5 5 5	4-5 5 5	3	4-5 5 5	4-5 5 5	4	50/60	+ + +
2.0% 4.0% 6.0%												
SEGAZOL Brown GR	100	- +	6 5	4-5 4-5	4 4-5 4-5	4 4-5 5	1-2	4 5 5	4 5 5	1-2	50/60	+ + +
2.0% 4.0% 6.0%												
SEGAZOL Black B Conc.	100	+ +	5 4-5	4-5 5	4-5 4-5 4-5	4-5 5 5	1-2	4-5 5 5	4-5 5 5	4-5	50/60	+ + +
2.0% 4.0% 6.0%												
SEGAZOL Black B	100	+ 4	5 4-5	4-5 5	4-5 4-5 4-5	5 5 5	1-2	5 5 5	5 5 5	4-5	50/60	+ + +
2.0% 4.0% 6.0%												
SEGAZOL Brillant Black GR	100	+ +	4-5 4	4 3-4	4-5 4-5 4-5	4-5 5 5	2	4-5 5 5	4-5 5 5	4-5	50/60	+ + +

SEGAZOL DYES

The economical package of standard reactive dyes for cellulose

	Solubility/l	Dischargeability	Light		Washing 60°C	Water	Chlorine washing	Perspiration Fastness		Chlorinated Water	Dyeing Methods	
			ISO	AT - TCC				Acid	Alkaline			
	25°C	1/1 1/6	1/1 1/6		CC CO CV	CC CO PA	CC	CC CO PA	CC CO PA	20 ppm	Exhaust°C	Cold Pad Batch Pad-Dry-Pad-Steam Pad-Dry-Thermofix
2.0% 4.0% 6.0% 												
SEGAZOL Black WM	1 00	+ +	4-5 4	4 4	5 5 5	4-5 5 5	2	5 5 5	5 5 5	4-5	50/60	+ + +
2.0% 4.0% 6.0% 												
SEGAZOL Black DN	100	+ +	4-5 4-5	4 4-5	4-5 5 4-5	5 4-5 4-5	2	5 4-5 4-5	5 4-5 4-5	4-5	50/60	+ + +
2.0% 4.0% 6.0% 												
SEGAZOL Ultra DR	100	+ +	4-5 4-5	4 4-5	45 5 5	5 5 5	2	5 5 5	5 5 5	4-5	50/60 /80	+ + +
2.0% 4.0% 6.0% 												
SEGAZOL Ultra Black G	100	+ +	4-5 4	4 4	5 5 4-5	4-5 4-5 4-5	2	5 4-5 4-5	5 4-5 4-5	4-5	50/60	(+) + +
2.0% 4.0% 6.0% 												
SEGAZOL Ultra Black R	100	+ +	4-5 4-5	4-5 4	4-5 4-5 4-5	4-5 4-5 4-5	2	4-5 5 5	4-5 5 5	4-5	50/60	+ + (+)
2.0% 4.0% 6.0% 												
SEGAZOL Black WR Conc	100	+ +	5 4-5	4-5 4	5 5 5	5 5 5	2	4-5 5 5	4-5 5 5	4-5	50/60 /80	+ + +
2.0% 4.0% 6.0% 												
SEGAZOL Super Black SGR	100	+ +	5 4-5	4-5 4-5	5 5 5	5 5 5	2-3	5 5 5	5 5 5	4-5	50/60 /80	+ + +
2.0% 4.0% 6.0% 												
SEGAZOL Black ED	100	+ +	4-5 4-5	4-5 4	4-5 4-5 4-5	4-5 4-5 4-5	2	4-5 4-5 5	4-5 5 5	4-5	50/60	+ + +

Staining of adjacent fibres
(exhaust process 60°C)

SEGAZOL I Yellow 4GL

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL I Yellow 3RF Conc

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL I Yellow 3RF

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL I Golden Yellow SBG

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL I Golden Yellow RNL

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL I Golden Yellow RR

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL I Orange 2RL

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL I Orange SBG

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL I Scarlet 2GF

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL I Red 3GX

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL I Red SE3BL

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL I Red 3BF

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

Staining of adjacent fibres
(exhaust process 60°C)

SEGAZOL | Red 3BS Conc

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL | Red BS

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL | Red RB

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL | Red SBG

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL | Deep Red CD

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL | Violet 5R

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL | Blue BB

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL | Blue BRF

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL | Blue R SP

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL | Blue SBG

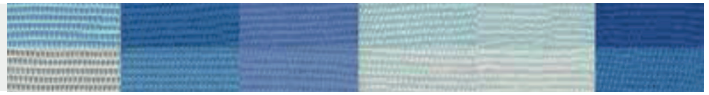
Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL | Turq Blue G 266%

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						

SEGAZOL | Royal S-B

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD 1 / 6 SD						



Staining of adjacent fibres
(exhaust process 60°C)

SEGAZOL | Navy Blue BF

Multifibre	CTA	CO	PA	PES	PAN	CV
2 / 1 SD						
1 / 6 SD						

SEGAZOL | Navy Blue SBG

Multifibre	CTA	CO	PA	PES	PAN	CV
2 / 1 SD						
1 / 6 SD						

SEGAZOL | Navy Blue GG

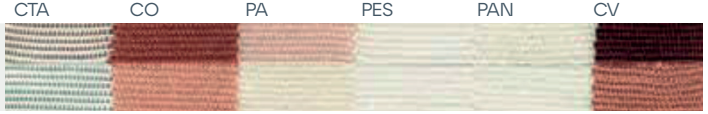
Multifibre	CTA	CO	PA	PES	PAN	CV
2 / 1 SD						
1 / 6 SD						

SEGAZOL | Dark Blue SBG

Multifibre	CTA	CO	PA	PES	PAN	CV
2 / 1 SD						
1 / 6 SD						

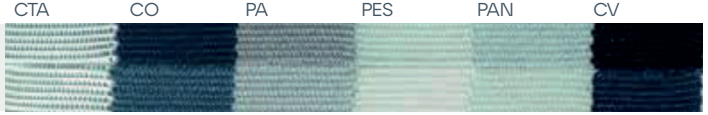
SEGAZOL | Brown GR

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD						
1 / 6 SD						



SEGAZOL | Black B Conc

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD						
1 / 6 SD						

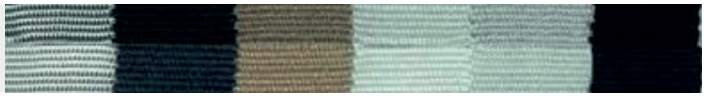


SEGAZOL | Black B

Multifibre	CTA	CO	PA	PES	PAN	CV
3 / 1 SD						
1 / 6 SD						

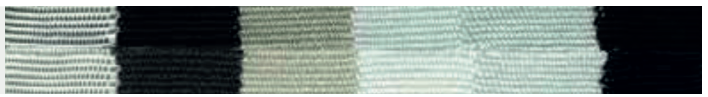
SEGAZOL | Brillant Black GR

Multifibre	CTA	CO	PA	PES	PAN	CV
3 / 1 SD						
1 / 6 SD						



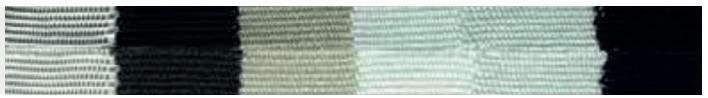
SEGAZOL | Black WM

Multifibre	CTA	CO	PA	PES	PAN	CV
3 / 1 SD						
1 / 6 SD						



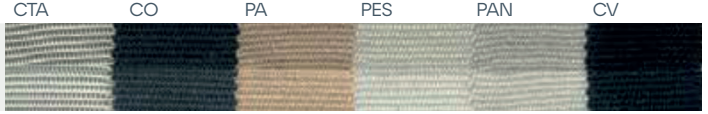
SEGAZOL | Black DN

Multifibre	CTA	CO	PA	PES	PAN	CV
3 / 1 SD						
1 / 6 SD						



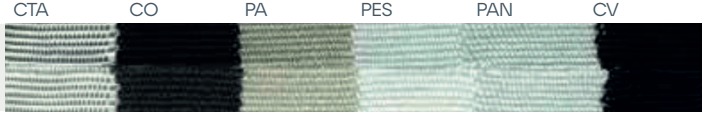
SEGAZOL | Ultra DR

Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD						
1 / 6 SD						



SEGAZOL | Ultra Black G

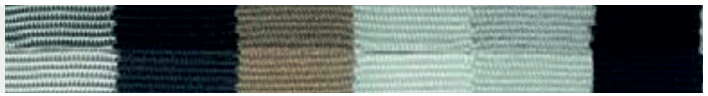
Multifibre	CTA	CO	PA	PES	PAN	CV
1 / 1 SD						
1 / 6 SD						



Staining of adjacent fibres
(exhaust process 60°C)

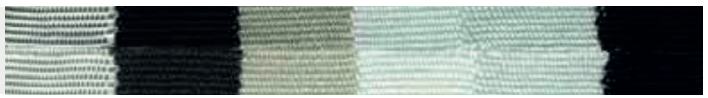
SEGAZOL I Ultra Black R

Multifibre	CTA	CO	PA	PES	PAN	CV
2 / 1 SD 1 / 6 SD						



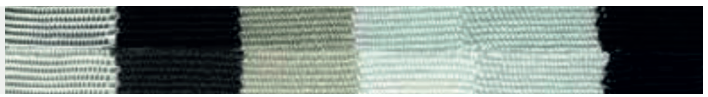
SEGAZOL I Black WR Conc

Multifibre	CTA	CO	PA	PES	PAN	CV
2 / 1 SD 1 / 6 SD						



SEGAZOL I Super Black SGR

Multifibre	CTA	CO	PA	PES	PAN	CV
2 / 1 SD 1 / 6 SD						



DATA ABOUT FASTNESS PROPERTIES

The fastness properties indicated in this shade card were determined on **1/1 SD= 2.0 %** standard depth dyeing on bleached cotton. Exceptions are the navy **(2/1 SD = 4.0%)** and black **(3/1 SD = 6.0 %)** dyes.

• Fastness to light	DIN EN ISO 105 | B02
• Fastness to laundring at 60°C	DIN EN ISO 105 | C06 / C2S
• Fastness to water	DIN EN ISO 105 | E01
• Fastness to perspiration	DIN EN ISO 105 | E04
• Fastness to washing with hypochlorite	DIN EN ISO 105 | C06 / D3S
• Fastness to chlorinated water	DIN EN ISO 105 | E03

Dischargeebility

\+ suitable for white discharge
(+) suitable for coloured discharge
\- not dischargeable

Methods - Overview

SEGAZOL dyes are universal- application reactive dyes. The SEGAZOL dyes in particular can be used in exhaust, semi-continuous dye processes. Due to the reactive anchor system, SEGAZOL bifunctional dyes can be combined with vinylsulfone dyes in some cases.

Exhaust Process for **SEGAZOL**

In the exhaust process the recommended dyeing temperature of the SEGAZOL dyes is 60°C. The best dyeing results are obtained at this temperature. SEGAZOL dyes can be used both on exhaust machines (jet, overflow) and also on exhaust devices (cross-package or warp beam dyeing equipment, beam dyeing apparatus atc.).

The application amouns of salt and alkali depend on the fabric to be dyed (nonmerc. Cotton, merc. cotton / viscose), the application amount of SEGAZOL dyes and the liquor ratio.

Continuous and Semi-Continuous dyeing **Methods**

Woven and kinitted fabric made of cellulose or regenerated cellulose can be dyed very economically with the cold pad batch (CPB) process with SEGAZOL dyes.

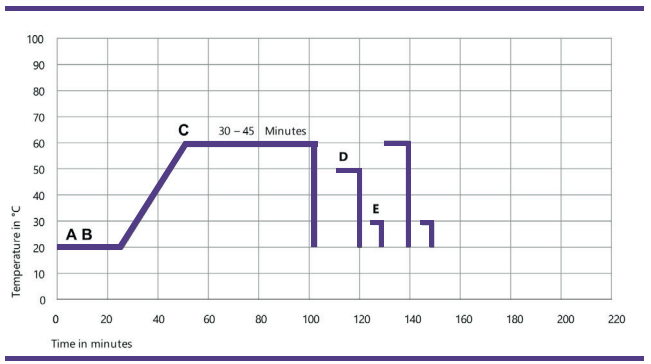
When selecting the dye it should be ensured that dyes with the same dyeing properties such as fibre affinity, liquor stabiliy and fixing speed should be used. Ure can be used in the case of very dark dyeing or also for cooling the padding liquor. The urea should be added at a temperature of below 50°C.To prevent change of shade from selvedge to centre during padding, a high liquor circulation should be ensured. To ensure a high liquor stability should be ensured that the temperature of the padding liquor is not higher than 25°C. Addition of ures makes the padding liquor cool. It is important that fabric has cooled properly to ensure reproducibility.

If the fabric temperature is too high, the liquor stability is lowered which results in a change of shade from selvedge to cendre. A constant production speed should generally be ensured. Different speeds influence the liquor pick-up and result in tailing.

Exhaust Method

Standard Method

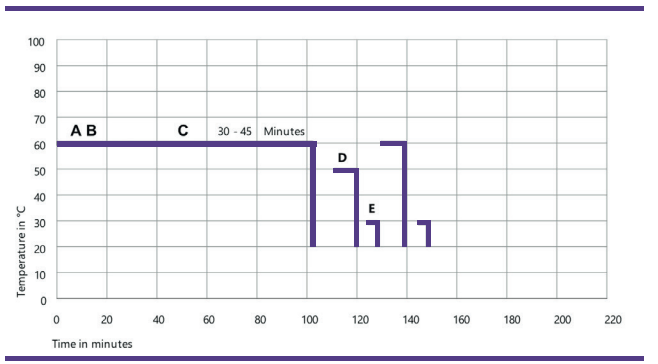
This process can be used to improve the tone-in-tone dyeing of cotton/viscose blends, particularly suitable for unmercerised cotton to produce deep shades. More over this method is applicable to vinylsulfone dyes and hence combination with bifunctional dyes is possible. This method gives an ideal rate of dyeing in terms of levelness and reproducibility even after the addition of alkali, but is necessary to take into account the type of dyeing machines and the form of materials to be dyed.



A	10.00 | 90.0	g/l	Common salt or Glauber's salt
B	x	%	**SEGAZOL** dye
C	5.0 - 10.0 0 - 4.0	g/l ml/l	Sodium carbonate Caustic soda 32.5 % (38°bé)
D	1.0	ml/l	80 % Acetic acid
E		Wash-Off (Cold - Hot - Cold)	

Isothermal Method

Universal method for excellent reproducibility and levelness. If a dosage control system is used, the sodium carbonate and lye can be added progressively which leads to a steady increasing fixing curve and therefore the best possible levelness is reached. In addition, hydrolysis of the dye is prevented. This means the highest possible colour yield.

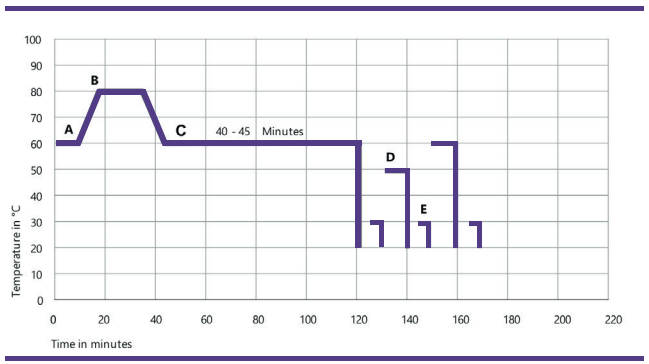


A	10.00 | 90.0	g/l	Common salt or Glauber's salt
B	x	%	**SEGAZOL** dye
C	5.0 - 10.0 0 - 4.0	g/l ml/l	Sodium carbonate Caustic soda 32.5 % (38°bé)
D	1.0	ml/l	80 % Acetic acid
E		Wash-Off (Cold - Hot - Cold)	

Exhaust Method

Migration Step Method 80 / 60˚C

This method is suiltable for textiles with which level dyeing is very difficult and for critical shades such as grey, khaki or beige. Excellent dye penetration and levelness can be achieved on wound packages. With difficult light or medium colours, salt dosing is also passible after the dye has been added.



A	10.00 | 90.0	g/l	Common salt or Glauber's salt
B	x	%	**SEGAZOL** dye
C	5.0 - 10.0 0 - 4.0	g/l ml/l	Sodium carbonate Caustic soda 32.5 % (38°bé)
D	1.0	ml/l	80 % Acetic acid
E		Wash-Off (Cold - Hot - Cold)	

Salt and alkali requirements to dye SEGAZOL

For unmercerised cotton

		Alkali Compound		
% Dyes	Salt g/l	Sodium Carbonate g/l	Caustic Soda 32.5% (38° Bé) ml/l	Only Sodium Carbonate g/l
< 0.1 %	10	5	-	5
0.1 - 0.5 %	20	1.0	-	10
0.5 - 1.0 %	30	5	1.0	15
1.0 - 2.0 %	40	5	1.5	15
2.0 - 3.0 %	50	5	2.0	20
3.0 - 4.0 %	60	5	2.5	20
4.0 - 5.0 %	70	5	3.0	25
5.0 - 7.0 %	80	5	3.5	25
> 7.0 %	90	5	4.0	25

For mercerised cotton and viscose

		Alkali Compound		
% Dyes	Salt g/l	Sodium Carbonate g/l	Caustic Soda 32.5% (38° Bé) ml/l	Only Sodium Carbonate g/l
< 0.1 %	10	5	-	5
0.1 - 0.5 %	10	7.5	-	7.5
0.5 - 1.0 %	20	5	0.8	10
1.0 - 2.0 %	30	5	1.2	15
2.0 - 3.0 %	40	5	1.5	15
3.0 - 4.0 %	50	5	1.7	20
4.0 - 5.0 %	60	5	2.0	20
5.0 - 7.0 %	70	5	2.2	25
> 7.0 %	80	5	2.5	25

Continuous and Semi-Continuous dyeing Methods

Cold Pad Bactch Method using reduced sodium silicate system

The sodium silicate variant is the standard variant and has a high pac liquor stability in the temperature range of 20 - 20°C. The application amount of silicate 38 ° Bé is generally 50 ml/l. Addition of the dye with the fixing alkali is performed with a mixing pump. Slicate deposits can occur on the rollers if silicate is used. Furthermore the use of silicate during the soaping process requires an intensive washing process before neutralisation to prevent silicate precipitation.

Dye solution:	x 0 - 100	g/l g/l	**SEGAZOL** dye Urea
Alkalii Solution:	50 y	ml/l ml/l	Sodium silicate 38° Bé Caustic soda 32.5 % (38° Bé)
Padding liquor temperature:		20 - 25 °C	
Liquor Pick up:		50 - 60 %	
Batching Time:		12 - 24 hours in general	
Batching Temperature:		20 - 25 °C	

Sodium Silicate method: Required amount of alkali:

Dyes [g/l]	<10	20	30	40	50	>60
Caustic soda 32.5 % (38° Bé) [ml/l]	12	14	16	18	20	22

Cold Pad Batch Method using sodium carbonate / caustic soda

This variant is an alternative to the alkali systems containing silicate at padding liquor teperatures of 20 - 25 °C. The bath stability is lowerad considerably at higher temperatures, which can result in change of shade from selvedge to centre. For this reason trough cooling and operation with a mixing pump is necessary. This method does not cause silicate deposits on the rollers. Furthermore the soaping process is shortened as a complex rinsing process to remove silicate is not necessary. In Contrast to the reduced sodium silicate version, the required fixing time is 1.5 times longer when dyeing with the sodium carbonate/caustic soda method

Dye solution:	x 0 - 100	g/l g/l	**SEGAZOL** dye Urea
Alkalii Solution:	50 y	ml/l ml/l	Sodium carbonate Caustic soda 32.5 % (38° Bé)
Padding liquor temperature:		20 - 25 °C	
Liquor Pick up:		50 - 60 %	
Batching Time:		12 - 24 hours in general	
Batching Temperature:		20 - 25 °C	

Sodium Silicate method: Required amount of alkali:

Dyes [g/l]	<10	20	30	40	50	>60
Caustic soda 32.5 % (38° Bé) [ml/l]	4	5	7	9	11	13

Pad Dry Pad Steam Method

The pad dry pad steam process is the classic continuous process for dyeing woven fabric with DYCOZOL dyes. It is primarily used for cellulose dyeing with a high length. This process is characterised by a high productivity, a good fabric apperance as wel as a good colour yield.

Padding of the dyes:	x 10 1.0 1.0	g/l g/l g/l g/l	**SEGAZOL** dye Migration Inhibitor Wetting Agent Reduction Inhibitor
Pick Up:		60 - 80 %	
Padding Temperature:		20 - 30 °C	
Predry to obtain a residual humidity of		30 - 35 %	
Drying		110 - 140 °C	
Padding of Chemicals:	250 20 5.0-10	g/l g/l g/l	Common Salt Sodium Carbonate Caustic Soda 32.5% (38 Bé)
Pick Up:		80 - 100 °C	
Padding Temperature:		20 - 30 %	
Fixation:		Steaming with saturated steam at 102 °C during 1 minute	

Alkali Requirement

Dyes [g/l]	<20	20-40	>40
Caustic soda 32.5 % (38° Bé) [ml/l]	7.5	10	15

Pad Dry Thermofix Method

The pad dry thermofix process is single-bath and salt-free continuous process. Particulary suitable for light to medium shades. Lower light fastness level is achieved than with the pad dry pad steam process. Sodium bicarbonate can be useb as a fixing alkali. Sodium bicarbonate has a higher liquar stability than sodium carbonate. For this reason sodium bicarbonate is recommended for **SEGAZOL** dyes. To ensure sufficient fixation of the dye it is necessary to ensure a certain moisture content on the fabric. For this reason the use of 50-150 g/l urea is necessary.

Padding of the dyes:	x 10 1.0 1.0 50-150 y	g/l g/l g/l g/l g/l g/l	**SEGAZOL** dye Migration Inhibitor Wetting Agent Reduction Inhibitor Urea Sodium Bicarbonate
Pick Up:		60 - 80 %	
Padding temperature:		20 - 30 °C	
Predyr to obtain a residual humidity of		30 - 35 %	
Drying:		110 - 140 °C	
Thermofix (Fixation):		1 Minute at 160 °C	

Alkali Requirement

Dyes [g/l]	5	10	20	30	>30
Caustic soda 32.5 % (38° Bé) [ml/l]	10	15	20	25	30

Pad Steam Method

The pad steam process is a single-bath continuous process in which the dye is fixed immediately using saturated steam. The method is preferred for terry towelling that cause high intermediate drying costs and migration problems. Sodium bicarbonate, sodium cabonate / caustic soda solution 38 Bé can be used as fixing alkalis. It is not necessary to use a mixing pump, whereby the formulation with sodium bicarbonate has the higher liquor stability.

Padding of the dyes:	x 10 1.0 0-30 50-150 y	g/l g/l g/l g/l g/l g/l	**SEGAZOL** dye Migration Inhibitor Wetting Agent Common Salt Urea Sodium Bicarbonate or Soda ash
Liquor Pick up:	60 - 80 %, pile fabrics and terry towelling 100-200%		
Padding temperature:	20 - 30 °C		
Steaming:	1 minute at 102 °C		

Alkali Requirement (Sodium Bicarbonate)

Dyes [g/l]	5	10	20	30	>30
Common Salt [g/l]	10	10	20	30	30
Sodium Bicarbonate [g/l]	10	15	20	25	30

Alkali Requirement (Soda Ash)

Dyes [g/l]	5	10	20	30	>30
Common Salt [g/l]	10	10	20	30	30
Sodium Bicarbonate [g/l]	5	10	15	20	25

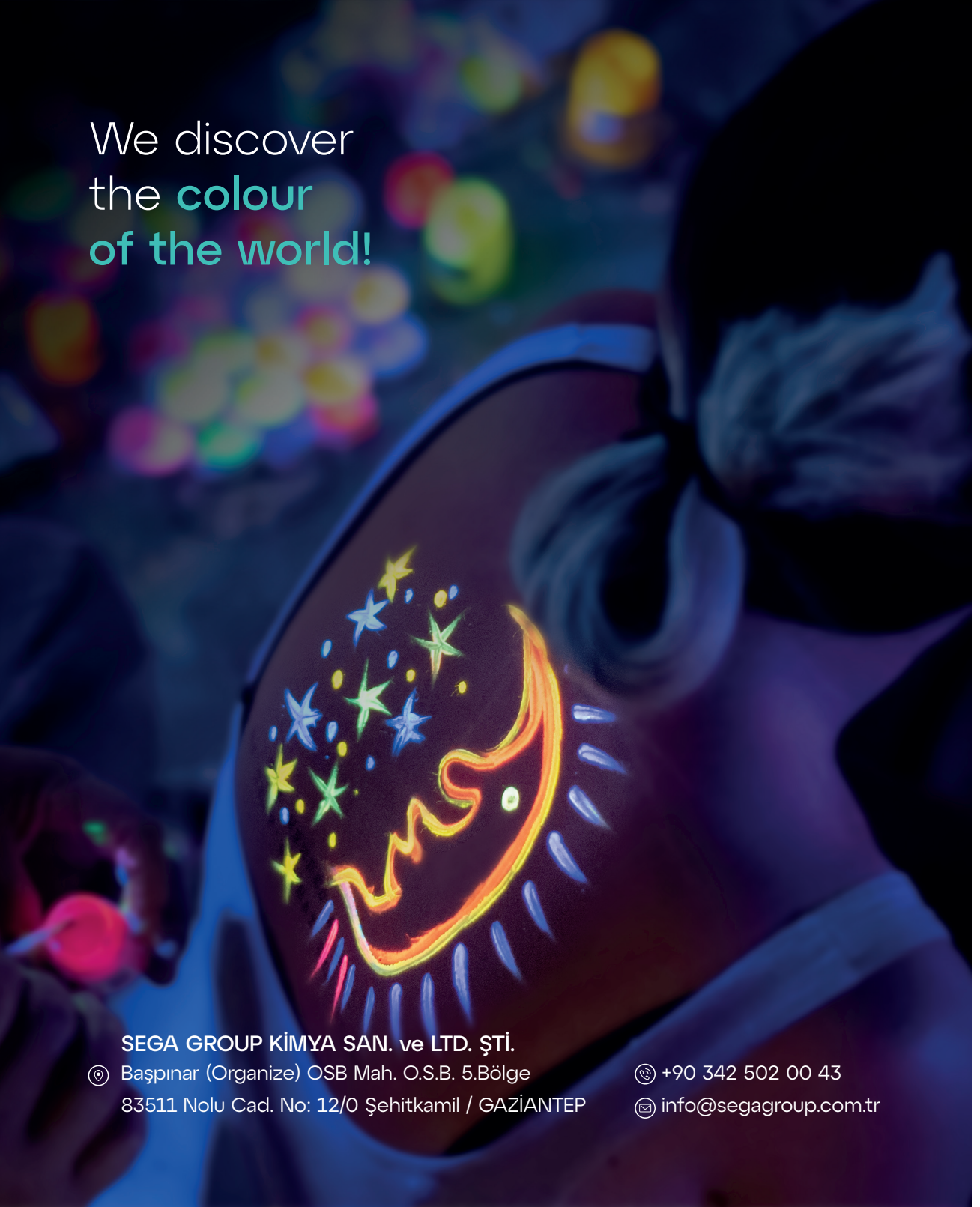
Cold Pad Batch Method using sodium carbonate / caustic soda

The pad steam dry process makes it possible to dye continuously with DYCOZOL dyes in light to deep shades on cellulose materials with good colour yield, without the addition of salt with excellent reproducibility.

Circulating Temperature:	120 - 130 °C		
Steam Content:	20 - 30 % by total volume		
Fixing Time:	2-4 minutes, depending on substrate to be dyed and the fabric speed		
Air Circulation	Depending on substrate to be dyed		
Padding liquor:	X 10 1.0 1.0	g/l g/l g/l g/l	**SEGAZOL** dye Migration Inhibitor Wetting Agent Common Salt Urea Sodium Bicarbonate or Soda ash
Liquor Pick Up:	60 - 80 %		
Padding Temperature:	20-25 °C		

Alkali Requirement

Dyes [g/l]	<20	20-40	40-60	>30
Soda Ash [g/l]	20	20	20	20
Caustic Soda 32.5 % (38 ° Bé) [ml/l]	7	10	15	20



SEGA GROUP KİMYA SAN. ve LTD. ŞTİ.
Başpınar (Organize) OSB Mah. O.S.B. 5.Bölge
83511 Nolu Cad. No: 12/0 Şehitkamil / GAZİANTEP
+90 342 502 00 43
info@segagroup.com.tr

SEGA GROUP
CHEMICALS & DYES

Eco Friendly
SEGA GROUP
CHEMICALS & DYES

www.segagroup.com.tr