



COTOBLANC[®] SEL

MULTIFUNCTIONAL SOAPING 40 °C – 98 °C

**Do your reactive soaping processes in a variable way!
Save water, energy and time**

CHT
SMART CHEMISTRY
WITH CHARACTER.

COTOBLANC[®] SEL

Synergistic blend of sequestering agents and polymers with affinity to dyes,
anionic, liquid

Advantages

- **Soaping at 40 °C – 98 °C**
- **Optimal soaping** result, independent of hardness degree and salt content
- **Saving of water and energy effectiveness** by shorter processing time
- **Antibackstaining**
- Optimisation potential depends on applied reactive system
- **GOTS approved textile auxilliary (Ecocert Greenlife); bluesign[®]; ZDHC (ZERO DISCHARGE OF HAZARDOUS CHEMICALS)**

Application quantities

Continuous treatment:

0.5 - 2.0 g/l COTOBLANC[®] SEL

Discontinuous treatment:

0.3 - 2.0 g/l COTOBLANC[®] SEL
(LR 1:5 - 1:8)

Light coloured dyeing (< 2.0 % dye)

0.3 – 0.6 g/l COTOBLANC[®] SEL

Medium coloured dyeing (2.0 – 4.0 % dye)

0.6 – 1.5 g/l COTOBLANC[®] SEL

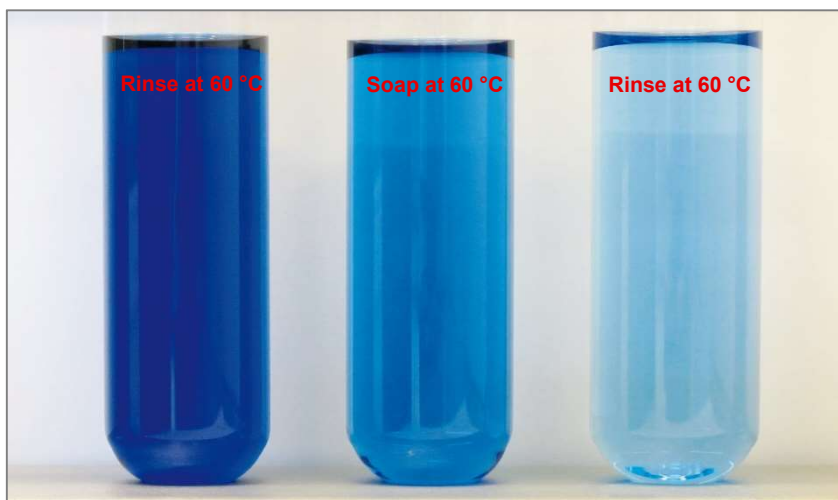
Deep coloured dyeing (> 4.0 % dye)

1.5 – 2.0 g/l COTOBLANC[®] SEL

How does COTOBLANC[®] SEL work:



Soaping and rinsing baths with COTOBLANC[®] SEL using an aftertreatment process at 60 °C



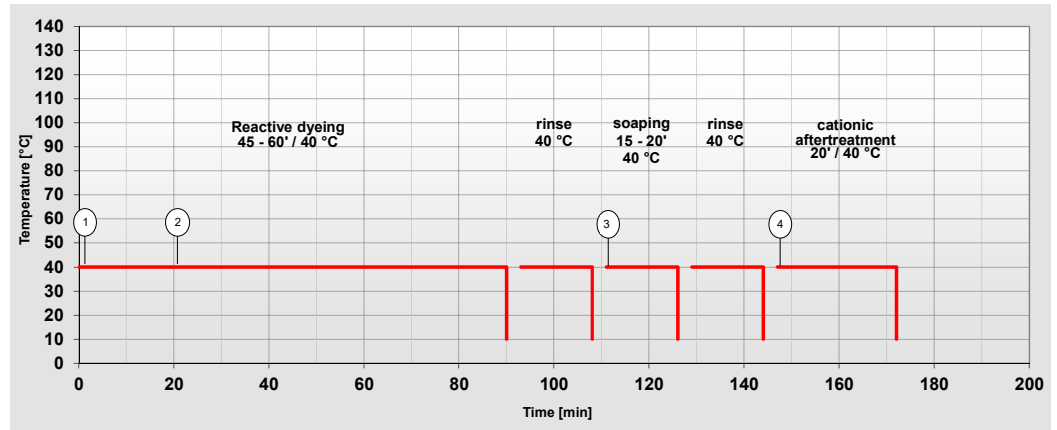
Soaping at 40 °C – 98 °C

Depending on applied reactive system

1	BEZAKTIV GO	x %
	SARABID MIP	1.0 - 2.0 %
	common salt	40.0 g/l
2	dosing in 45 min	
	soda ash	5.0 g/l
	NaOH 38 °Bé	z ml/l
3	COTOBLANC SEL	1.0 g/l
4	acetic acid	1.0 ml/l
	REWIND ACP	1.0 %

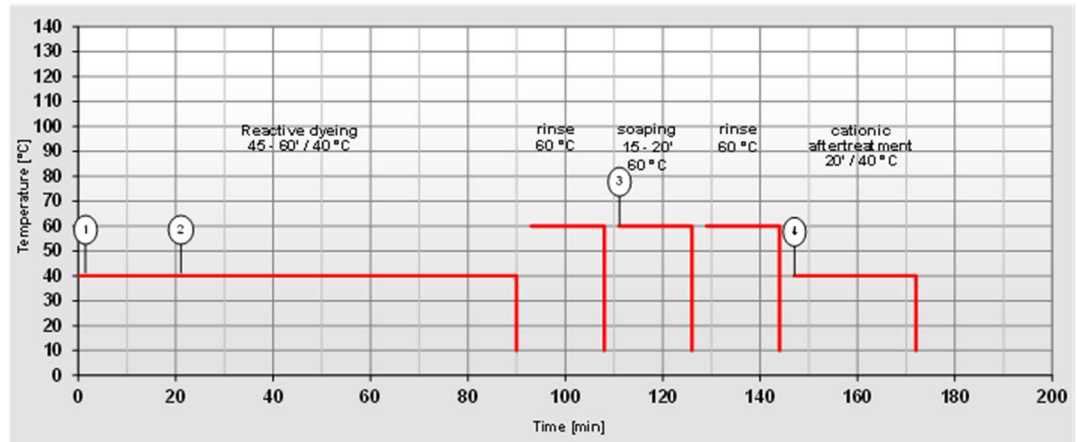
Dyeing and soaping at 40 °C

- BEZAKTIV GO
- Dye with high fixing degree
- Dye easy to be washed off



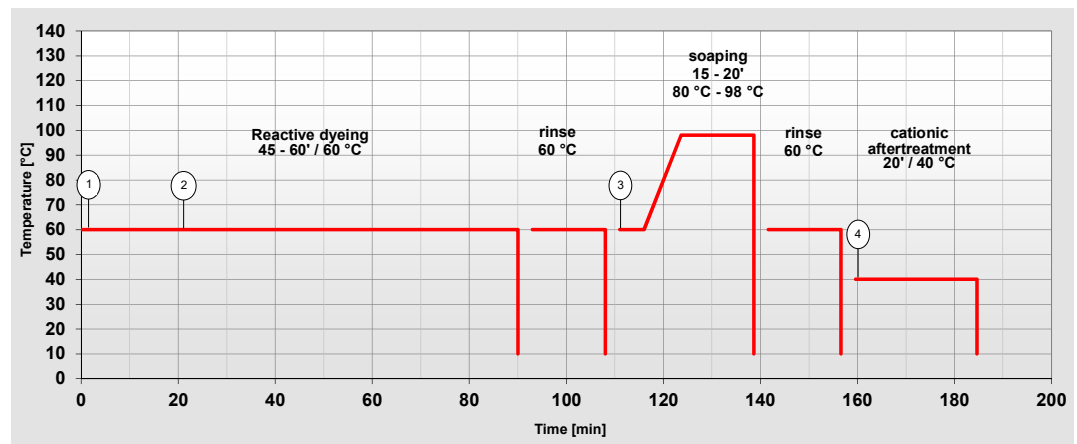
Dyeing at 40 °C and soaping at 60 °C

- BEZAKTIV GO
- Dye with high fixing degree
- Dye easy to be washed off
- very dark shades (black, navy, dark red)



Dyeing at 60 °C and soaping at 80 °C – 98 °C

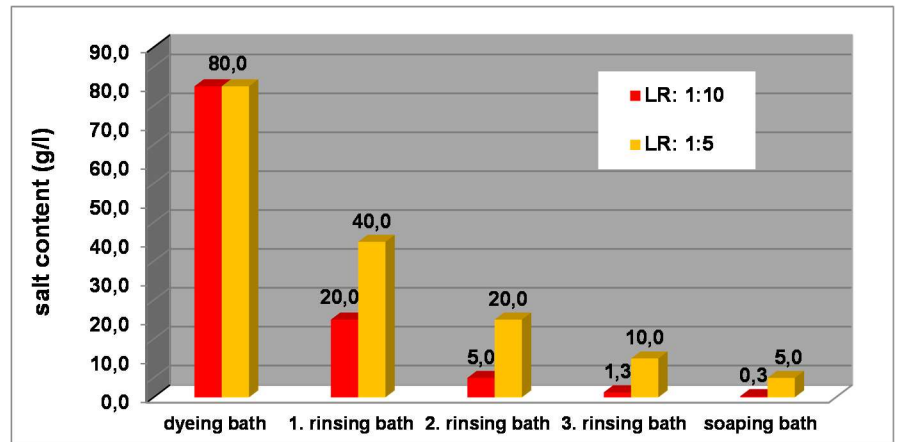
- Conventional reactive dyes
- Dye with lower fixing degree
- Dye difficult to be washed off



Optimal soaping result

Independent of hardness degree and salt content

Fig.:
Reduction of salt quantity by rinsing processes in standard process series (estimated retention coefficient = 3).



Soaping test for reactive dyeings

Elimination of reactive dye hydrolysate

1. Reactive dye hydrolysate

Recipe:

2.5 g/l BEZAKTIV dark blue V-HR
10.0 g/l soda ash
boil 4 h at reflux
(= Hydrolysis)

Padding: liquor pick-up: 80 %
(pad 1x)

Stenter: dry for 4 min at 120 °C

= **Basic fabric**

2. Soaping test (50 ml/soaping test) with bleached CO woven fabric

Machine: Labomat®
LR: 1:10

Recipe: Water at 5°dH with 5.0 g/l NaCl

x g/l auxiliary
pH 8.5 with soda ash
15 min at 98 °C
= **Accompanying material 1**

Repeat soaping process
= **Accompanying material 2**

Basic fabric



5.0 °dH
5.0 g/l NaCl

2x soaped
basic fabric

accompanying
material 1

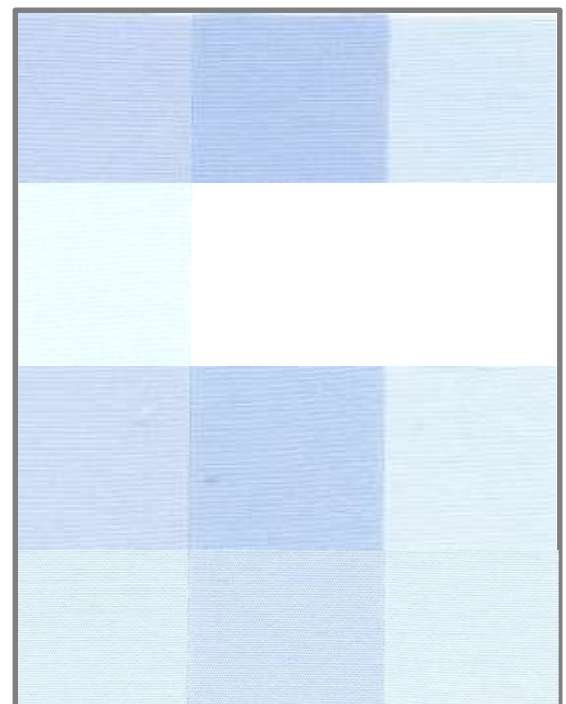
accomp.
material 2

without
soaping agent

1.0 g/l
COTOBLANC®
SEL

1,0 g/l
aftersoaping
agent based on
acrylate/
phosphonate

2.0 g/l
aftersoaping
agent based on
acrylate/
phosphonate



Optimal soaping result

by complex formation – dye + COTOBLANC® SEL

Soil or dye hydrolysate suspending capacity

2.5 g of fabric are treated at a liquor ratio of 1:20, with a bath of 50 ml at 95 °C for 20 min.

Test of the soiling of solution with BEZAKTIV dark blue V-HR hydrolysed before in a standardised procedure. 2.5 g/l of BEZAKTIV dye are hydrolysed with 10.0 g/l soda ash at 98 °C for 4 h.

1.0 ml of this solution corresponds to the residual dye of dyeing of 2.5 %, with fixing to 80 % at a liquor ratio of 1:20.

3.0 ml of this solution correspond to dyeing of 7.5 %.

To determine the soil suspending power of the soaping agent, the quantity of dye is measured after the treatment which has been absorbed by the ready to dye material in comparison to the untreated material.

Material: CO knit fabric

LR: 1:20

Water: Soft water (4 – 5°dH)

Bath A: 20.0 ml/l hydrolysed dye
X g/l soaping agent
= **2.5 % dyeing**

Bath B: 60.0 ml/l hydrolysed dye
X g/l soaping agent
= **7.5 % dyeing**

Heat up at 95 °C
20 min at 95 °C,
Rinse on overflow

Basic fabric 2.5 % dye 7.5 % dye

without soaping agent



1.0 g/l COTOBLANC® SEL



2.0 g/l COTOBLANC® SEL



1.0 g/l aftersoaping agent based on acrylate/ phosphonate

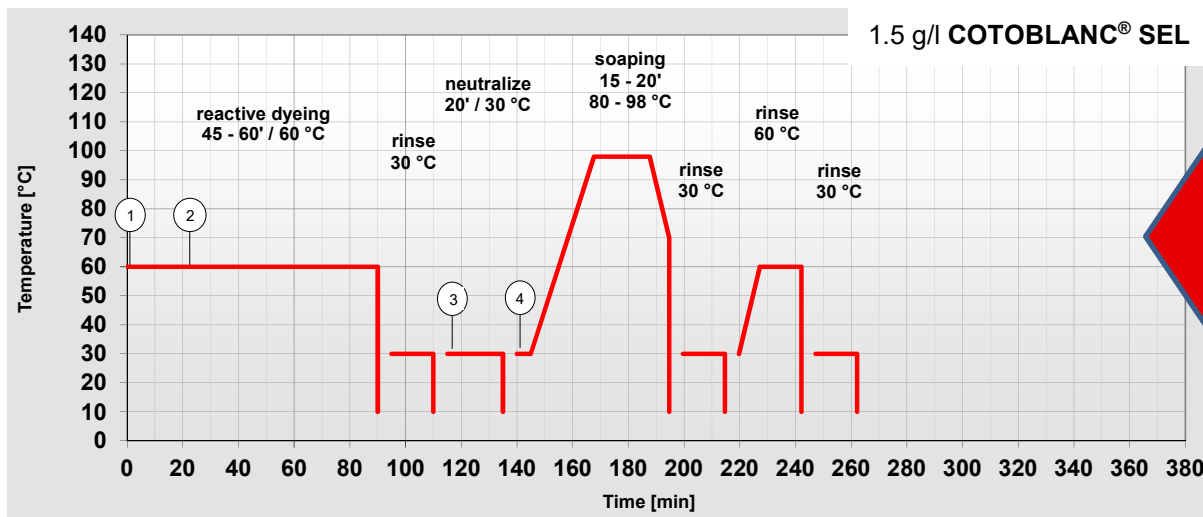
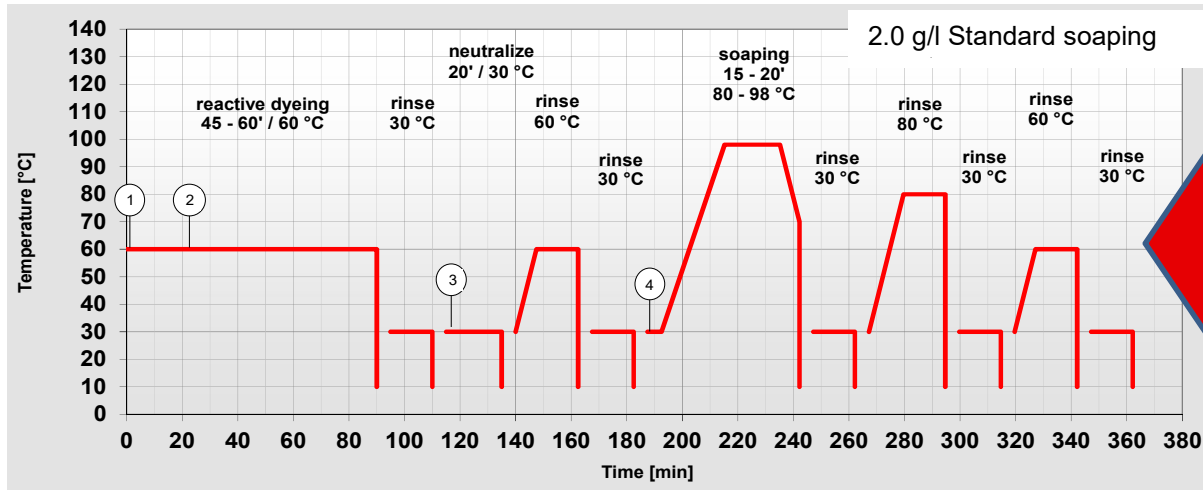


2.0 g/l aftersoaping agent based on acrylate/ phosphonate



Process shortening for existing procedures

Saving of water and energy by optimised rinsing processes



Process data: 12.0 % Reactive black (VS)

Material:	CV(CO/LY)
Quantity:	500 kg
LR:	1:8
Filling time:	5 min
Let off time:	5 min
Heating gradient:	3.0 °C/min
Cooling gradient:	3.0 °C/min
Water retention power:	2.5 l/kg
Power input:	50 kWh

Process costs – rinse/soap

<u>Process time</u>			
Standard process	251	minutes	
COTOBLANC® SEL	164	minutes	
Saving	87	minutes	34.7 %
<u>Water consumption</u>			
Standard process	22.00	m ³	
COTOBLANC® SEL	17.75	m ³	
Saving	8.25	m ³	31.7 %
<u>Steam consumption</u>			
Standard process	2.462	kg	
COTOBLANC® SEL	1.595	kg	
Saving	867	kg	35.2 %
<u>Energy consumption</u>			
Standard process	140	kWh	
COTOBLANC® SEL	93	kWh	
Saving	47	kWh	33.6 %

Antibackstaining

Soaping test on CO thread

Material: CO thread, pretreated
LR: 1:10

Dyeing:

4.0 % BEZAKTIV dark blue V-HR

Rinse 2 x at 70 °C, dry

Soap:

Colour fabric/white fabric 1/1

pH 7.0

20 min at 98 °C, rinse

By afterwashing of thread dyed materials with COTOBLANC® SEL a bleeding on light colours is prevented.



Basic fabric

2.0 g/l standard soaping agent

1.0 g/l COTOBLANC® SEL

2.0 g/l COTOBLANC® SEL

Antibackstaining in enzyme treatment of finished articles

- minimal colour shade change with application of BEIZYM BPN 300 (neutral cellulase)
- prevention of soiling of accompanying material by addition of COTOBLANC® SEL

Material: CO knit fabric, bordeaux
CO knit fabric, white

Bordeaux and white ratio 1:1

LR: 1:10

Recipe:

- 1) 1.0 % BEIZYM BPN 300
pH 7.0
60 min at 50 °C, rinse, enzyme stop
- 2) 1.0 % BEIZYM BPN 300
0.5 ml/l COTOBLANC® SEL
pH 7.0
60 min at 50 °C, rinse, enzyme stop

