

COTTOBLEACH WEL

Low pH and Temperature Bleaching Agent

Characteristic : Mixture of alkali and organic catalysts.

Appearance : Light yellow, granular powder.

Properties :

- During peroxide bleaching of cotton,

High pH, 11 - 12

High temp. 95 - 120 °C

is required, for the effective activation of hydrogen peroxide. If lower pH & temperature value is preferred, 80 - 90 percent of input peroxide is not decomposed and bleaching of cotton is not accomplished, properly.

- However, under ideal bleaching conditions, cotton is degraded and hence,

Weight loss approaches up to 10 percent,

Tensile strength decreases drastically,

Fabric is crease sensitive,

Handle of fabric is harsh.

- In order to overcome these problems, **COTTOBLEACH WEL** is generously designed, to carry out bleaching at low pH, below 9. Low pH bleaching imparts the cotton;

Less weight- loss,

Higher tensile strength,

No damage to elasthan,

Less crease - mark formation,

More soft fabric

properties.

- **COTTOBLEACH WEL** can also be used for one-bath process for direct dyeing and COT-PES full bleaching.

One-Step Bleaching and Dyeing with Direct Dyes

- Since direct dyes are operating at low pH and are not sensitive to peroxide, **COTTOBLEACH WEL** bleaching and direct dyeing can be combined safely and hence;
 - Energy is saved,
 - Process water is saved,
 - Less environmental pollution,
 - Increased dye-house efficiency.

One-Step Bleaching and Optical Brightening of Polyester/Cotton Blends

- Optical brighteners are easily degraded at high pH of peroxide bleaching recipes. Shade becomes dull. Two steps bleaching and dyeing is preferred for PES/Cotton blends.
- Due to low pH of **COTTOBLEACH WEL** process, PES/Cotton blends can be safely bleached and brightened.

Wool Bleaching

- Since wool is degraded and yellow colored at high pH and temperature, normal bleaching process cannot be carried out **COTTOBLEACH WEL** is very successfully to bleach wool and wool blend at low temp. of 40 °C in two hours time. During this process wool fiber is not damaged and softness is remained.

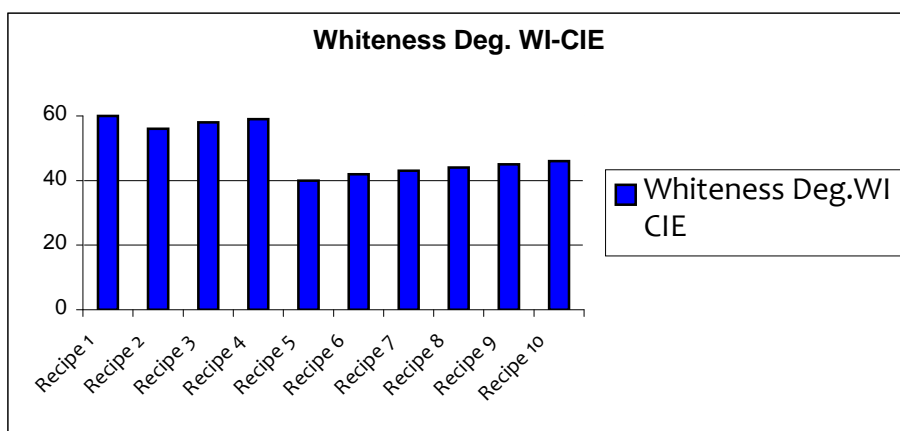
Solubility : Soluble in water.

pH(1 g/L) : 10 - 11

PRE-DYEING

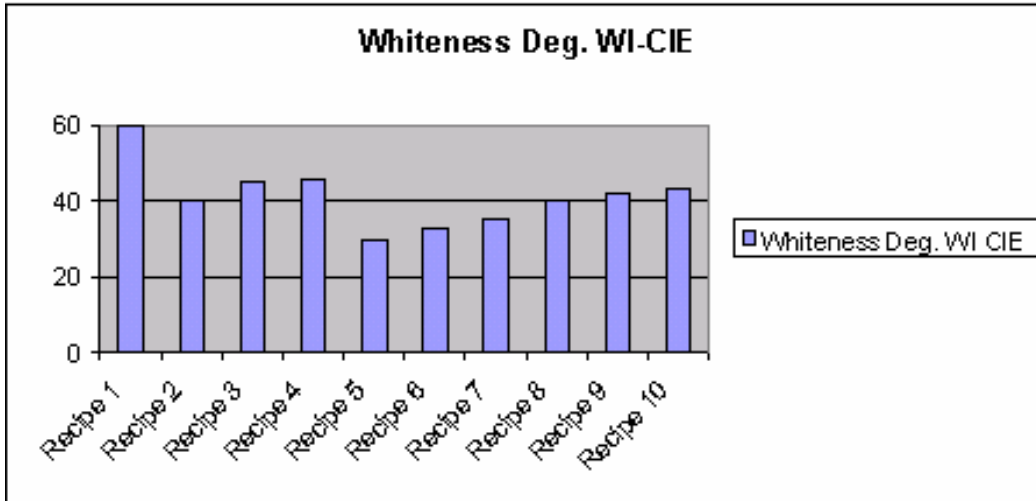
OPTICAL BLEACH

	NORMAL	EKSOY1	EKSOY2	NORMAL	EKSOY1	EKSOY2
Peroxide, 50 % g/L	3,6	3	3	7	8	9
NaOH, FL, g/L	1	-	-	2,5	-	-
Stabilizer g/L	0,5	-	-	1	-	-
E WET RPN g/L	-	-	0,5	-	-	-
COTTOBLEACH WEL g/L -		1,5	2	-	3	4
Final pH	10	8,6	9,1	11	9,6	9,9
Whiteness, CIE	50	46	50	54,3	57,3	58

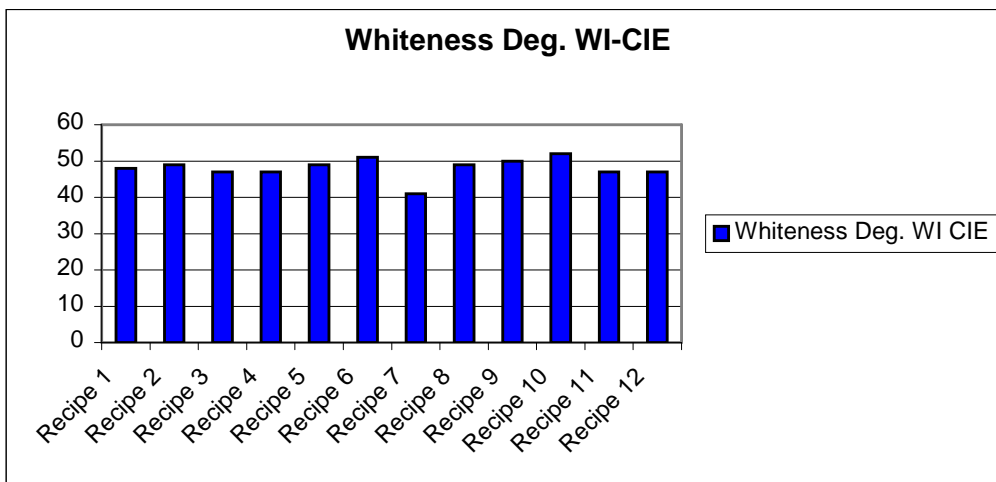


H ₂ O ₂ (ml/L)	3	3	3	4	5	5	5	10	10	10
46 Be' Caustic (g/L)	2	-	-	-	-	-	-	-	-	-
COTTOBLEACH WEL (g/L)	-	1,5	2	2	2	3	4	3	4	5
E WET SVS (g/L)	1	1	1	1	1	1	1	1	1	1
Temp. °C	95	95	95	95	60	60	60	60	60	60
Final pH	10,67	9,59	9,86	9,92	10,05	10,34	10,52	10,11	10,47	10,55

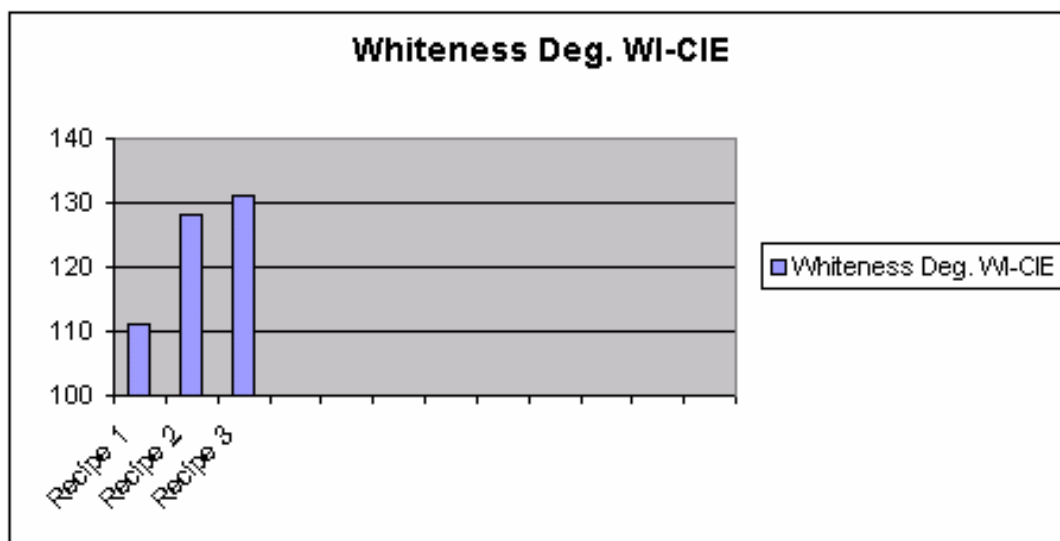
Fabric Type 30/1 OE Supreme



H ₂ O ₂ (ml/L)	3	3	3	4	5	5	5	10	10	10	
46 Be' Caustic (g/L)	2	–	–	–	–	–	–	–	–	–	
COTTOBLEACH WEL (g/L)	–	–	1,5	2	2	2	3	4	3	4	5
E WET SVS (g/L)	1	1	1	1	1	1	1	1	1	1	
Temp. °C	95	95	95	95	60	60	60	60	60	60	
Final pH	10,67	9,59	9,86	9,92	10,05	10,34	10,52	10,11	10,47	10,55	



Fabric Type	triple yarn knitted fabric											
H ₂ O ₂ (ml/L)	8	8	7	7	8	8	7	7	8	8	7	7
COTTOBLEACH WEL (g/L)	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5
E WET SVS (g/L)	1	1,5	1	1,5	1	1,5	1	1,5	1	1,5	1	1,5
Temp. °C	70	70	70	70	75	75	75	75	85	85	85	85
Final pH	10,09	10,1	10,25	10,2	10,15	10,18	10,20	10,22	9,9	9,85	9,65	9,8
Fabric type	50 % vis. : 50 % cot.						30/1 OE supreme					



H ₂ O ₂ (ml/L)	7	7	7
46 Be' Caustic (g/L)	2,5	2,5	2,5
ANTISIL CONZ (g/L)	0,5	—	—
COTTOBLEACH WEL (g/L)	—	1	2
E WET SVS (g/L)	1	1	1
OPTIC CO %	0,3	0,3	0,3
Temp. °C	95	95	95
Initial pH	11,14	11,35	11,37
Final pH	10,41	10,68	10,78

Fabric type triple yarn knitted fabric.

According to the trials given above, for 100 % cotton ideal bleaching recipes;

Bleaching for dyed goods;

Peroxide, 50 %	3 g/L
COTTOBLEACH WEL	1,5 g/L
E WET RPN	0,5 g/L

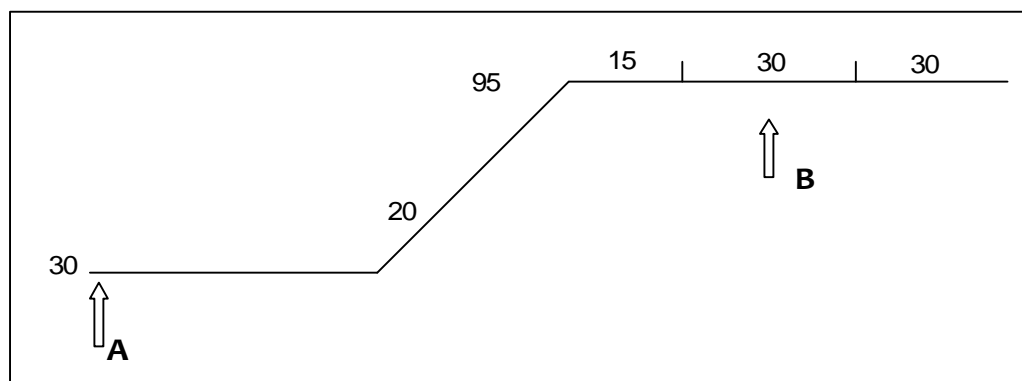
Optical bleaching;

Peroxide, 50 %	7 - 8 g/L
COTTOBLEACH WEL	3 g/L
E WET RPN	0,5 g/L

is recommended.

BLEACH/DYE IN ONE BATH (DIRECT DYES)

A	Peroxide, 50 %	3 g/L
	COTTOBLEACH WEL	1,5 g/L
	E WET RPN	0,4 g/L
	EXOLUBE NC	0,5 g/L
	Direct dye	x %
B	Sodium Sulphate	10 %



Cold washing, fixing with COLORFIX NF.

Bleaching and Brightening of Pes/Cotton

50 % pes, 50 % cotton

H₂O₂ 3 g/L

COTTOBLEACH WEL 1,5 g/L

E WET RPN 0,4 g/L

EXOLUBE NC 0,5 g/L

OPTIC CO 0,2 (Cotton Optic)

OPTIC PES 0,3 % (PES Optic)

Temp. 120 °C

Time 60 min

- Optic amounts can be arranged depending on pes/cot blending factors.

Wool Bleach

	<u>Dyeing</u>	<u>Optical Bleach</u>
Peroxide, 50 %	15	20
COTTOBLEACH WEL	12 g/L	15
MEGACLEAR 12	–	1
OPTIC CO	–	0,5 %
Bath Ratio	1:12 - 1:14	
Temp.	40 °C	
Time	2 h	

Storage :2 year.

These data are based on our practical experience and may be recommended only without any liability, due to the different plant conditions.