

1.

“ , 가 ” 가
座右銘 . 가
 .

2.

1 2
 . 2 (擴布)
 ,
 1 () , ,
 가 ,
 가 2
 .
 代替 1 (cold-pad batch)
 ().
 , , (batching
 time •) .

1) ,

2)

1) 2)

3. ECO

ECO . Monforts ECO ,
/ 2 3
.
가

(Arrhenius式).

$$K=A \cdot e^{(-E_a/RT)}$$

K= , A=頻度 , E_a=

R= , T=

式

가 10 가 2 가 .

ECO

3.1

ECO

100% , 340/460g/m²

100% () 315g/m²

100% , 175g/m²

100% , 220g/m²

67/33 / , 160g/m²

.

40Mℓ/ ℓ NaOH(50%)

8Mℓ/ ℓ Cottoclarin()

6Mℓ/ ℓ Stabilol()

5g/ ℓ

50Mℓ/ ℓ (50%)

20

.

.

30Mℓ/ ℓ NaOH(50%)

8Mℓ/ ℓ Cottoclarin()

5Mℓ/ ℓ Stabilol()

5g/ ℓ

40Mℓ/ ℓ (50%)

20

.

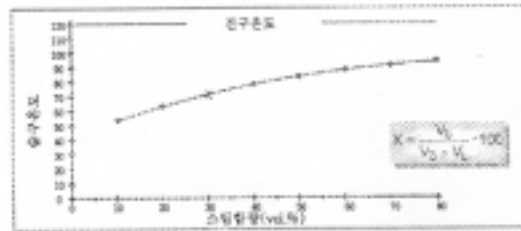
가 .

Monforts ECO .

3.2 ECO

ECO

→ (2 3 , 120 , 30 35 vol.%) → →
30% 71 (120)가 (1).



< 1>

± 20

± 1 vol.%

71

(1).

< 1>

	100	120	140
59	16.70	15.55	14.41
61	18.70	17.57	18.64
63	20.84	19.74	18.64
65	23.14	22.07	20.99
67	25.60	24.56	23.52
69	28.24	27.23	26.22
71	31.06	30.09	29.11
73	34.08	33.14	32.21
75	37.30	36.41	35.51
77	40.74	39.89	39.04
79	44.41	43.61	42.80

± 20

100% (315g/m²,) 100% (340g/460g/m²)

20Mℓ/ ℓ NaOH(50%)

10Mℓ/ ℓ Cottoclarin()

6Mℓ/ ℓ Stabilol()

2g/ ℓ

40Mℓ/ ℓ (50%)

100% (175g/m²), 100% (220g/m²), 67/33 /
(160g/m²)

20Mℓ/ ℓ NaOH(50%)

8Mℓ/ ℓ Cottoclarin()

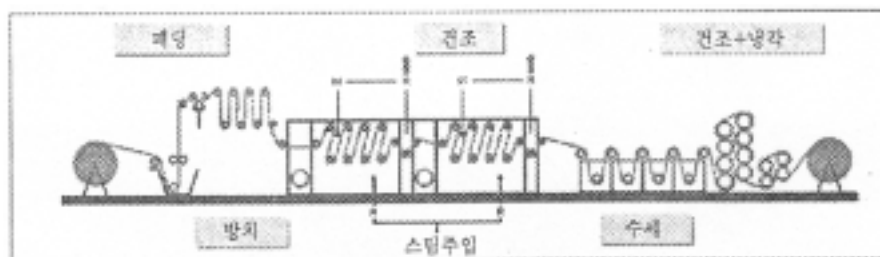
6Mℓ/ ℓ Stabilol()

2g/ ℓ Sodium persulphate

30Mℓ/ ℓ (50%)

30 vol.% 120

< 2> Monforts ECO



< 2> Monforts ECO

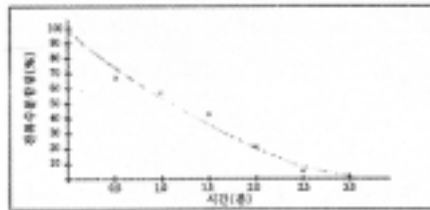
ECO ,

(Pleva FS91)

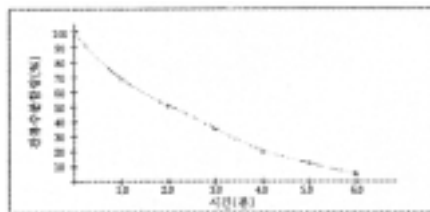
< 3, 4>

100%

100%

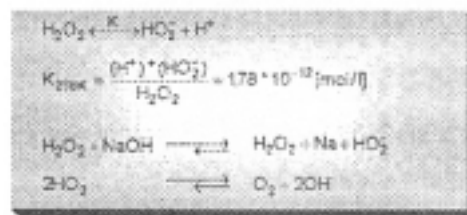


< 3> (100%)



< 4> ()

, (5).

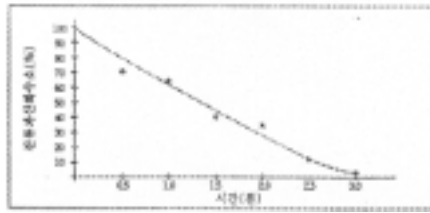


< 5> Degussa

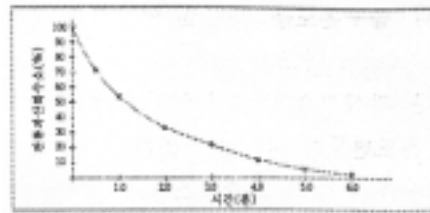
. <

6, 7>

.



< 6>



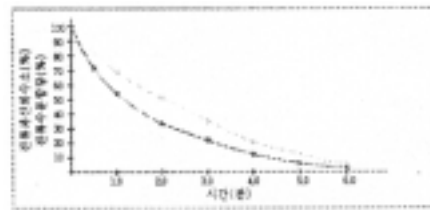
< 7>

(8, 9).

(10),

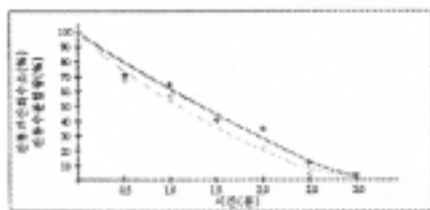
가 ,

가 .

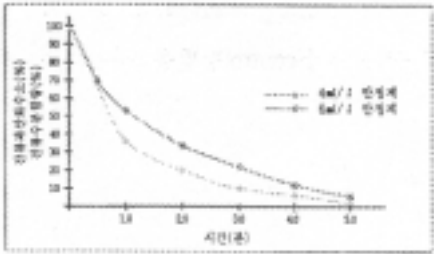


< 8>

()



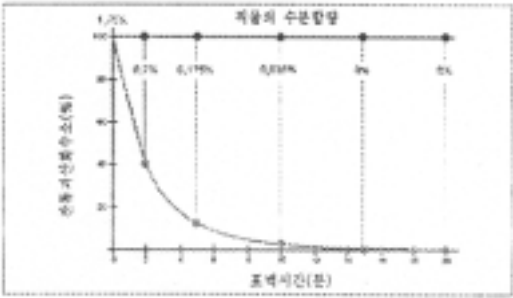
< 9> ()



< 10> 4M 6M 가

가

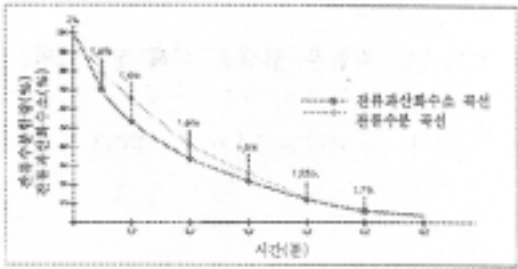
, 20 가 (11).



< 11>

12>

가



< 12>

/

가

가

3.2 ECO

6 가 < 2> . ECO

白度 . Tegewa 適下

ECO

ECO . (s factor)

4.

Econtrol

가 . ECO 가

< 2> 가

				Tegewa			Tegewa violet scale
		Berger	% remission	()			
100% 460g/m ²	· ECO	1.9 66.2 67.1	47.3 82.1 83.6	>180 1 1	- 14 14	- 14 14	9 9 9
100% () 315g/m ²	"	9.8 59.4 58.4	52.9 78.9 79.4	>180 3 51	- 22 20	- 16 14	1 4 4
100% 175g/m ²	"	1.2 61.9 60.7	48.8 82.2 81.0	>180 1 1	-16 20	- 18 18	9 9 9
100% 170g/m ²	"	13.2 79.2 79.5	54.9 87.4 88.0	>180 1 1	- 22 26	- 16 18	9 9 9
/ 160g/m ²	"	28.7 68.4 68.7	63.9 81.6 83.4	>180 2 2	- 26 30	- 26 26	9 9 9
220g/m ²	"	-17.7 73.8 74.4	47.9 83.7 83.8	>180 1 1	- 22 22	- 20 20	1 8 7

ECO → →

(無 가) → Econtrol

→

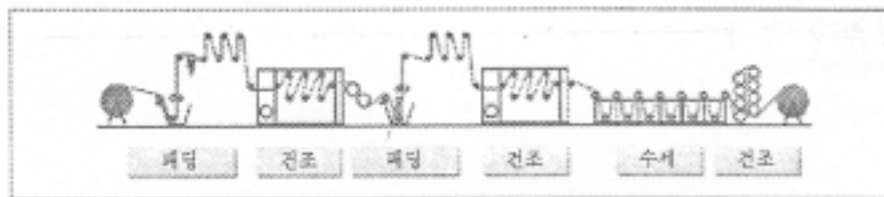
가 ,

가 가

가 가

() → (2 3 , 120 , 30 vol.%) →
 (, 가) → (2 3 , 120 130 , 25
 vol.%) → →

. < 13> ECO



< 13> ECO

. 가
 가 ,
 , . 厚織物 2 3
 가 , 가 . 가
 가 .

5.

Monforts ECO

