

1.

Acala 1517-V , (Stretch-broken) 64^{'s}
64^{'s} . 15^{'s}/1(
) (39mg/m) OE
2/2
OE
가 ,

2.

OE
(Cotton Incorporated), (Wool Bureau)
(Southern Regional Research Center : SRRC)
(Western Regional Research Center : WRRC)
WRRC ,

3.

: Acala 1517-V 3
 SRRC . 64's 2
 , 1 51mm(2in) (Stretch-breaking) (BW) , 1 38mm(1.5in) (Cut) (CW)
 가 ASTM
 : WRRC
 ,
 : 가
 25 lbs/hour(3.15g/sec) 55 gr/yd(3.9g/m)
 Cardmaster top가
 CMC-Evenfeed , 55 gr/yd(3.9g/m)
 19 lbs/hour(2.39g/sec)
 Saco-Lowell 4-over-5 Versamatic 400
 ft/min(33.87mm/sec) , 10 , 10

로울러 위치	로울러세팅 (mm)	드래프트배분
Front~ 3 rd	65 (2 - 9/16")	5.03
3 rd~ 4 th	38 (1 - 1/2")	1.41
4 th~ Back	46 (1 - 13/16")	1.41

1

10% , 55

gr/yd(3.9g/m) .

WRRC .

55 gr/yd(3.9g/m) .

100%, 75C/25W, 60C/40W, 45C/55W 100%(C :

, W :) 5 . (CW) (BW)

SRRC OE

WRRC . 15's(:

39.4mg/m) ,

紡績法	経糸			緯糸		
	TF	TM	TPI	TF	TM	TPI
Ring	38.3	4.00	15.5	35.9	3.75	14.5
Open-end	49.7	5.20	20.1	46.9	4.90	19.0
梳毛	38.3	4.00	15.5	35.9	3.75	14.5

) TF = Twist Factor(tex)

TM :

Tex-System twist factor

$$\begin{aligned} &= (\text{turns/cm}) \times \sqrt{\text{tex}} \\ &= \left(\frac{\text{turns/in}}{2.54}\right) \times \sqrt{\frac{590.5}{2.54}} = \frac{\sqrt{590.5}}{2.54} \times \frac{\text{turns/in}}{\sqrt{\quad}} \\ &= 9.568 \times \text{Cotton system twist factor} \end{aligned}$$

ASTM Saco-Lowell Rovematic

0.85's(695mg/m)

Duo-Roth Saco-Lowell 3

(75mm) BD-200 OE

34,000rpm(3,500 rad/s)

2/2 380mm, 2.25

/mm, 2.52 /mm, 230 g/m²

4.

< 1>

섬유특성		100 C	75C/25BW	60C/40BW	45C/55BW	100 BW
면의 실제 혼합비율 (%)		100	76.0	60.2	46.8	0
섬유장	UQL (mm)	33.8	35.3	36.8	39.1	51.1
	ML (mm)	28.2	30.0	31.0	32.8	40.4
	C. V. (%)	27	33	32	36	34
	단섬유≤12.7mm (%)	4.5	4.6	4.9	4.9	3.0
섬도 (μg/in)		4.23	5.18	5.80	6.33	* -
섬유속강도 (KN·m/kg)		288.2	243.6	204.4	176.7	200.6
섬유속신도 (%)		6.37	6.59	6.48	6.80	25.97
섬유특성		100C	75C/25CW	60C/40CW	45C/55CW	100CW
면의 실제 혼합비율 (%)		100	75.7	60.4	46.8	0
섬유장	UQL (mm)	33.8	26.6	36.8	38.1	39.1
	ML (mm)	28.2	30.5	29.0	31.0	31.2
	C. V. (%)	27	26	32	27	31
	단섬유≤12.7mm (%)	4.5	3.7	5.8	4.0	4.6
섬도 (μg/in)		4.23	5.30	5.75	6.65	* -
섬유속강도 (KN·m/kg)		288.2	234.6	202.3	188.9	178.7
섬유속신도 (%)		6.37	6.27	6.43	6.40	24.85

* : 측정 불능.

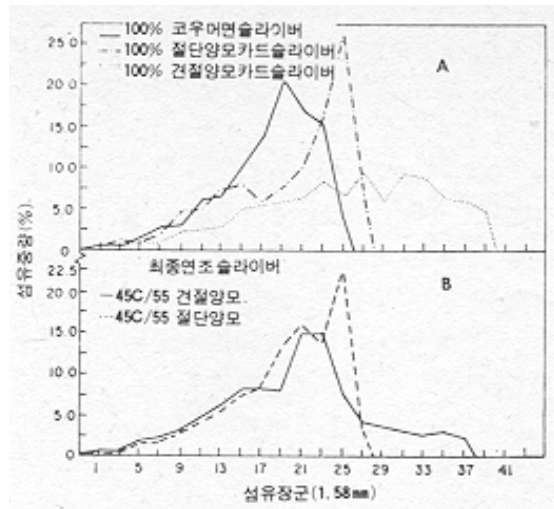
: < 1> .

,

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,

.



< 1>

: < 1> (A) 가 ,

가 (BW CW) .

. (BW)가 가

가 . (CW) (

) (

) .

, 15~39

.

< 1> (B) .

45C/55BW

45C/55CW 가

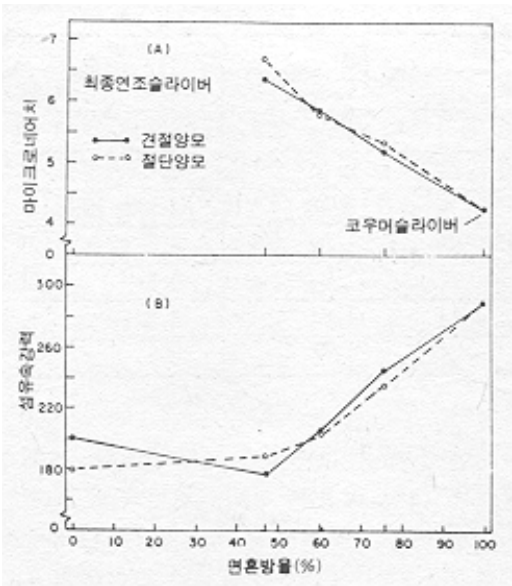
가

:

2(A)

10% 가 0.4

$\mu\text{g/in.}$



< 2>

가 < 2>

(B)

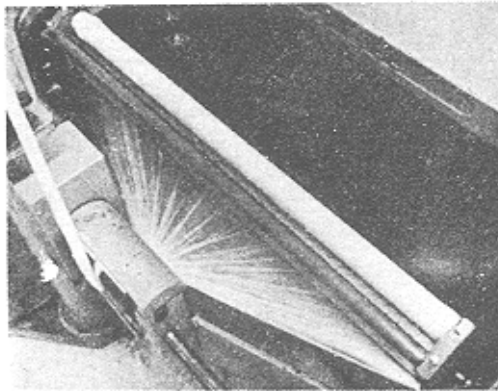
가

가 . 10% 가
22KN.M/KG 가 . 100%
가

.
: 100% ,

.
가 .

< 3>.



< 3>

: 가

< 2> .

가 .
60mm가 .

45C/55BW

75C/25BW,60C/40BW

6mm

1.6

< 2>

로 트 별	로 울 러 간 격 (mm)		백 · 트래프트
	프론트~미들	미들 ~ 백	
100%코우머면	51(2 in)	41 (1 5/8 in)	1.4
75C/25BW	60(2 3/8 in)	48(1 7/8 in)	1.6
60C/40BW	60	48	1.6
45C/55BW	60	54(2 1/8 in)	1.6
75C/25CW	54(2 1/8 in)	41	1.6
60C/40CW	54	41	1.6
45C/55CW	54	41	1.6

: < 3> Uster evenness-tester

. 60C/40BW,

45C/55BW

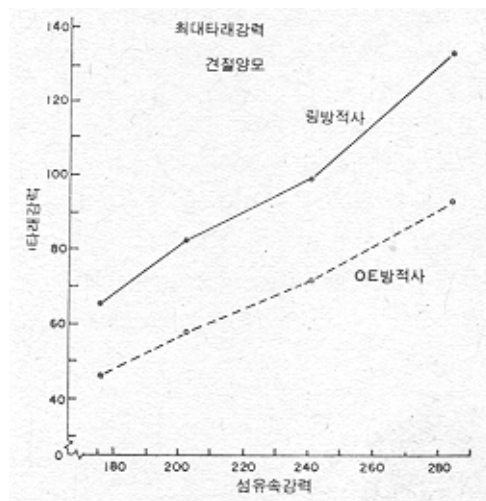
75C/25BW

가

< 3>

로 트 별	로 울 러 간 격 (mm)		백 · 트래프트	텐서 (mm)
	프론트~미들	미들~백		
100%면	43(1 5/8 in)	52(2 1/8 in)	1.54	5.6(0.22in)
75C/25BW	48(1 7/8 in)	54(2 1/8 in)	1.64	5.6
60C/40BW	48	54	1.64	4.1(0.16in)
45C/55BW	51(2 in)	57(2 1/4 in)	1.64	4.1
75C/25CW	48	54	1.64	4.1
60C/40CW	48	54	1.64	4.1
45C/55CW	48	54	1.64	4.1

:
 < 4>
 .
 .
 -
 가 OE
 .
 100%, 47%
 , 45C/55BW 37%
 100% OE 35% , 45C/55BW OE
 26%
 OE



< 4>
 : < 5> OE
 . (31mm)
 (40mm)
 가
 가 7%

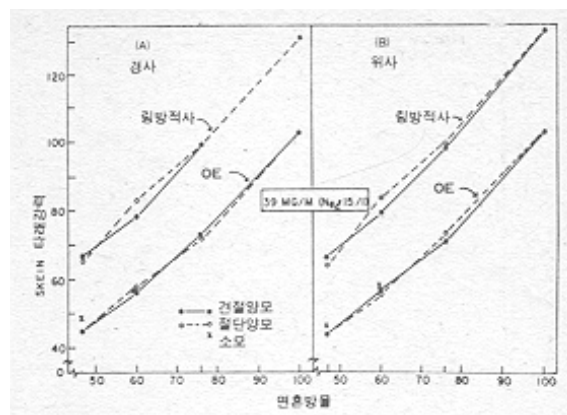
. OE -

. 60C/40W, 45C/55W

< 5> X

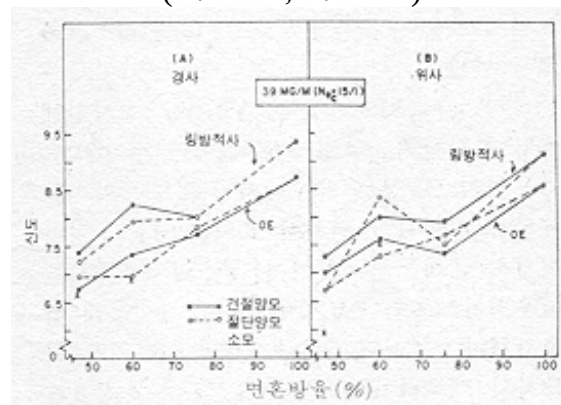
OE .

86mm 51mm, 38mm .



< 5>

(A: , B:)



< 6>

: OE

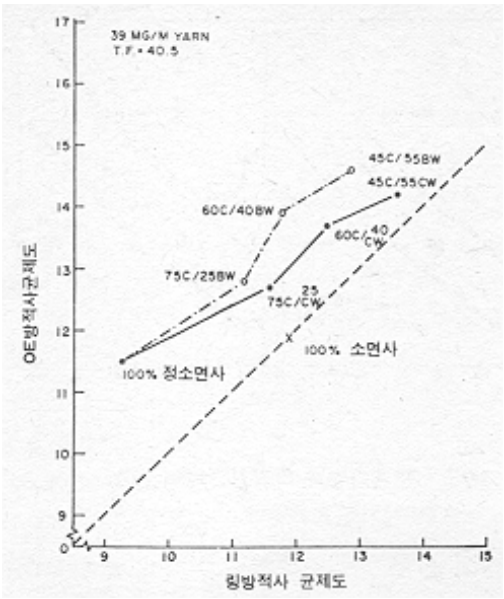
가 < 6> . 가

가 . OE .

OE .
: (TM)가 4.23(TF=40.5) OE

가 < 7> .
Uster evenness-tester cv% 가 . OE

CV OE CV



< 7> OE

가 . < 7>

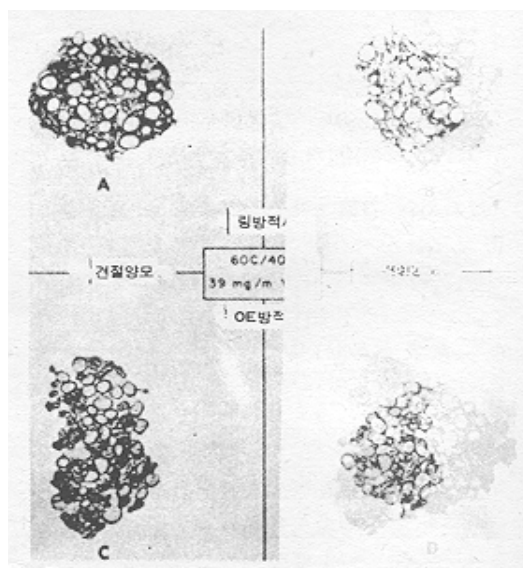
100% CV%

CV가 11.8%
 CV가 9.2%
 OE
 가 0.3% ,

가
 , OE
 가

: 4 60C/40W 240
 < 8> . < 8> (A) (B)
 , (C) (D) OE

가 .
 가
 . < 8>
 60%, 40% 75%, 25%가 .



< 8> 60C/40W

: < 9> (A) . , OE

(Relative grab breaking strength)

100

. 45C/55BW

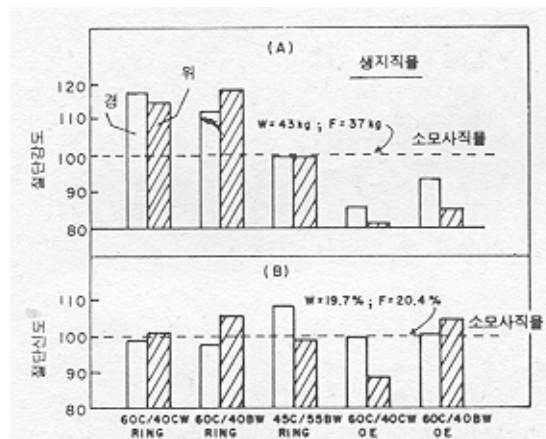
,

60C/40W, 60C/40BW

15~20%

, OE

5~19%



< 9> ()

: < 9> (B)

60C/40CW OE

: < > (A) Elmendorf

. 60C/40CW 60C/40BW

45C/55W

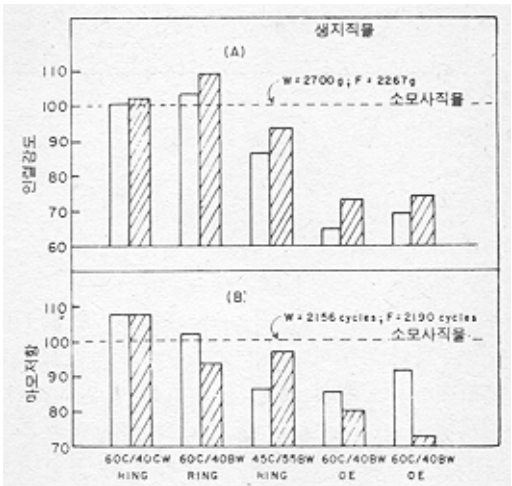
가 . OE

2/3 .

: < 10> (B)

가

가



< 10> (Elmendorf)

(100)

5.

1.

2.

3.

100% .

4. .

5. 0E 3 가 .

6. .

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