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Rieter Machine Works Ltd.

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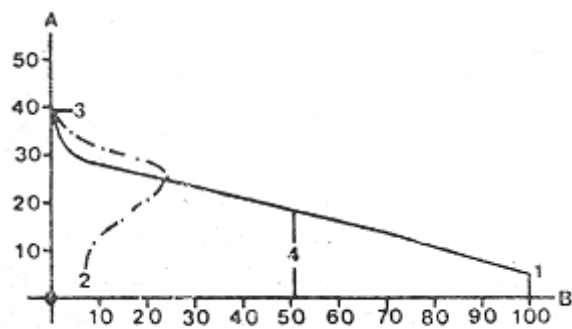
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6.87% .



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Fibre diagram of Soviet cotton, quality 4

material from bales, denier 3.87 g/in.=1.52dtex(1.37den)

A Fibre length(mm)

B Portion of the various fibre lengths in the diagram %

1 Fibre diagram

2 Frequency curve

3 Max. fibre length = 39mm

4 Mean fibre length = 17.84mm

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, 71.4% 79% 가

1.97%

1.47%

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Material : Soviet cotton grade 4;denier : 3,87 $\mu\text{g/inch}$

Designation	I	II	III
Raw material			
Trash content in %	6.87	—	—
Mono cylinder cleaner			
Trash content in %	4.46	—	—
Reduction in %	2.41	—	—
Cleaning efficiency in %	33.92	—	—
ERM I			
Trash content in %	3.23	—	—
Reduction in %	1.23	—	—
Cleaning efficiency in %	27.61	—	—
ERM II			
Trash content in %	1.97	—	—
Reduction in %	1.26	—	—
Cleaning efficiency in %	37.68	—	—
ERM III			
Trash content in %	—	1.63	—
Reduction in %	—	0.34	—
Cleaning efficiency in %	—	17.22	—
ERM IV			
Trash content in %	—	—	1.47
Reduction in %	—	—	0.16
Cleaning efficiency in %	—	—	9.81
Blowroom cleaning efficiency in %	71.4	76.3	78.6
Improvement in %	—	4.9	7.2
Card			
Trash content in %	0.27	0.24	0.22
Reduction in %	17.0	1.39	1.25
Cleaning efficiency in %	86.4	85.2	84.8
Improvement in %	—	0.03	0.05
Staple			
Max. fibre length in mm	39	39	38
Mean fibre length in mm	17.84	17.12	16.08
Short fibres percentage in %	28	31	36
Overall cleaning efficiency (blowroom+carding) in %	96.1	96.4	96.8

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7.2%(78.6-71.4)

-1.6%(84.8-86.4) (

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0.5%(1.97-1.47)

0.05%(0.27-0.22)

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가 0.7%(96.8-96.1)

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Designation	I	II	III
Card			
Hourly production in kg/h	35.0	35.0	35.0
Sliver count Nm	0.20	0.20	0.20
U% at 25 m/min	2.99	3.16	3.41
Drawframe 1st Passage			
Delivery m/min	300	300	300
Sliver count Nm	0.20	0.20	0.20
Feed	6fold	6fold	6fold
Draft	6fold	6fold	6fold
U% at 25m/min	2.86	3.02	3.36
Drawframe 2nd Passage			
Delivery m/min	450	450	450
Sliver count Nm	0.20	0.20	0.20
Feed	6fold	6fold	6fold
Draft	6fold	6fold	6fold
U% at m/min	2.70	3.08	3.32
Rotondo MO/5			
Yarn count Nm	34	34	34
Delivery per m/min	53.5	53.5	53.5
Twist per metre	818	818	818
Draft	141fold	141fold	141fold
U% at 25m/min	10.21	10.96	11.72
U% at 100m/min	10.05	11.08	11.68
Neps per 1000m	271	362	526
Increase in %	—	134	194
Thick places per 1000m	9	47	91
Increase in %	—	522	1001
Thin places per 1000m	67	81	104
Increase in %	—	121	155
Breaking strength in Rkm	10.39	9.82	9.16
Reduction in %	—	95	88
Elongation in %	9.72	9.08	8.71
Ends down per 1000 roter hours	28	41	62
Increase in %	—	146	221

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U% 11.72% 10.21%, 91 9, 가 104

67, 9.16 10.39, 62 28 .

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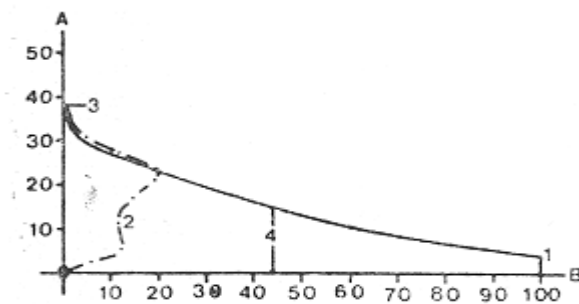
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Fibre diagram of comber waste, material from bales, denier $3.40\text{g/in} = 1.33\text{dtex}(1.20\text{den})$

A Fibre length(mm)

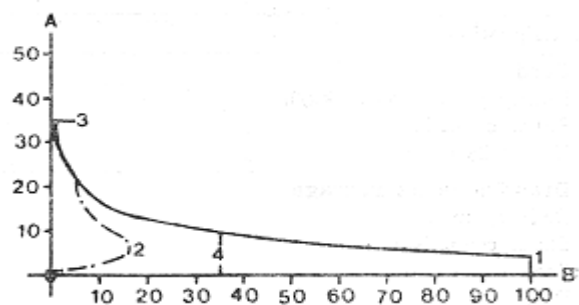
B Portion of the various fibre lengths in the diagram(%)

1 Fibre diagram

2 Frequency curve

3 Max. fibre length = 35mm

4 Mean fibre length = 9.53mm



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Fibre diagram of comber waste material from card sliver,
denier $3.60\text{g/in} = 1.41\text{dtex}(1.27\text{den})$

A Fibre length(mm)

B Portion of the various fibre lengths in the diagram(%)

1 Fibre diagram

2 Frequency curve

3 // Max. fibre length = 36mm

4 Mean fibre length = 9.63mm

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Material : cotton comber waste; denier: 3.60 μ g/inch

esignaton	I	II	III
Card sliver			
U% at 25m/min	2.59	2.59	2.59
Trash content in%	0.22	0.22	0.22
Max. fibre length in mm	36	36	36
Mean fibre length in mm	9.63	9.63	9.63
Short fibres in %	78	78	78
Drawframe 1st Passage			
Sliver count Nm	0.20	0.20	0.20
Feed	6fold	6fold	3fold
Draft	6fold	6fold	3fold
Delivery in m/min	240	240	240
U% at 25 m/min	3.83	3.85	2.89
Drawframe 2nd Passage			
Sliver count Nm	0.20	—	—
Feed	6fold	—	—
Draft	6fold	—	—
Delivery in m/min	240	—	—
U% at 25 m/min	6.42	—	—
Rotondo MO/5			
Yarn count Nm	17	17	17
Delivery in m/min	72.5	72.5	72.5
Twist per metre	620	620	620
Draft	83fold	83fold	83fold
U% at 25 m/min	12.76	11.85	10.01
U% at 100 m/min	12.52	11.83	10.18
Neps per 1000m	47	30	23
Thick places per 1000m	19	6	2
Thin places per 1000m	52	31	2
Breaking strength in Rkm	7.08	7.21	7.87
Breaking strength in CV%	14.38	13.18	9.60
Elongation in %	8.92	8.97	9.12

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(10.0% 12.8%)

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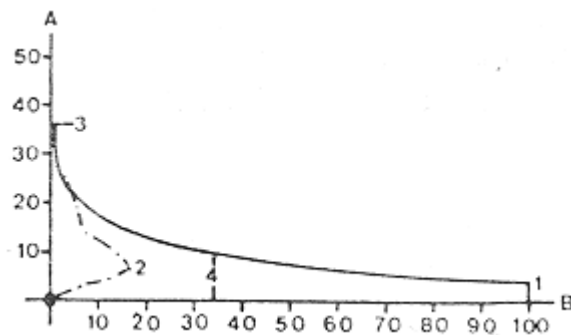
US

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Nm 20



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Fibre diagram of USA California cotton,

Material from card sliver, denier 2.91g/in = 1.12dtex(1.03den)

Pressley value = 87,900 lbs/sq inch

A Fibre length(mm)

B Portion of the various fibre lengths in the diagram(%)

1 Fibre diagram

2 Frequency curve

3 Max. fibre length = 38mm

4 Mean fibre length = 14.74mm

Nm 27

Nm 27

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Material : US California cotton; denier: 2.91 μ g/inch

Designation	Yarn count-Nm 20		Yarn count-Nm 20	
Card sliver				
U% at 25 m/min	1.92		1.92	
Trash content in %	0.18		0.18	
Max. fibre length in mm	38		38	
Mean fibre length in mm	14.74		14.74	
Short fibres in %	46		46	
Drawframe 1st Passage				
Sliver count Nm	0.20	0.20	0.20	0.20
Feed	6fold	6fold	6fold	6fold
Draft	6fold	6fold	6fold	6fold
Delivery in m/min	450	450	450	450
U% at 25 m/min	2.58	2.58	2.58	2.58
Drawframe 2nd Passage				
Sliver count Nm	—	0.20	—	0.20
Feed	—	6fold	—	6fold
Draft	—	6fold	—	6fold
Delivery in m/min	—	240	—	240
U% at 25 m/min	—	2.48	—	2.48
Rotondo MO/5				
Yarn count Nm	20	20	27	27
Delivery in m/min	69.0	69.0	54.0	54.0
Twist per metre	650	650	830	830
Draft	100fold	100fold	133fold	133fold
U% at 100 m/min	9.92	10.01	10.26	9.77
Neps per 1000m	201	171	302	262
Thick places per 1000m	20	23	32	20
Thin places per 1000m	19	16	31	13
Breaking strength in Rkm	10.39	10.42	9.82	10.41
Breaking strength in CV%	7.89	7.92	7.88	7.42
Elongation in%	8.50	8.62	8.18	8.26
Ends down per 1000 rotor hours	14	16	37	21

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