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Production of Mohair Yarns on the Repco Spinner

Part II: The Spinning of Wrapped Core-Spun Mohair Yarns and their use in Lightweight Mohair Suiting Fabrics

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PRODUCTION OF MOHAIR YARNS ON THE REPCO SPINNER PART II: THE SPINNING OF WRAPPED CORE-SPUN MOHAIR YARNS AND THEIR USE IN LIGHTWEIGHT MOHAIR SUITING FABRICS

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ABSTRACT

Relatively fine wrapped core-spun mohair yarns were produced on the Repco spinner and uptwisted with very few turns per metre to retain the natural lustre of the mohair fibres. The yarns performed very well in preparation and weaving and were superior to conventional yarns in respect of tensile strength, extension, regularity and hairiness.

The fabrics (approximately 160 g/m²) produced, were satisfactory. Different finishing procedures had marginal effects on the physical properties of the fabrics. The advantages accrued when using Repco wrapped core-spun mohair yarns in lightweight mohair suitings are:

(i) very much lighter yarn linear densities can be spun;
(ii) higher spinning speeds and better spinning performance;
(iii) less yarn hairiness;
(iv) improvements in certain physical properties of the fabrics;
(v) better performance of yarns in preparation and weaving, and
(vi) lighter weight fabrics of finer constructions can be woven.

INTRODUCTION

It would appear that no work has been published on the production of mohair yarns on the Repco system except a report by Turpie *et al* [1].

The initial trials[1] on the spinning of kid mohair on the Repco Spinner showed, that if a continuous filament yarn was incorporated (similar to core-spinning) a high spinning performance could be achieved for medium/coarse yarns.

It was found that 58 tex was the lowest yarn linear density that could be spun using the conventional Repco technique, but, when two filament yarns (22 dtex f7 type 300, ± 9,5 t/metre, z twist) were incorporated, one in each strand of mohair, it was then possible to spin a 40 tex yarn quite easily. A yarn of 40 tex S350 STT produced a fabric with high lustre but because of streakiness (unevenness) in the fabric it was not considered satisfactory. *Two strands of mohair and one nylon filament core were then drafted and self twisted with a*

single filament binder yarn and the resultant yarn was termed core-spun/filament STT yarn. A 37 tex yarn, with 370 t/metre was produced at very high spinning efficiency and the yarn evenness was considered to be satisfactory.

It was decided to use this technique to produce yarns for weaving into mohair suitings and compare these fabrics with conventional mohair fabrics and in this report the development work using fine mohair yarns (as fine as 16 tex) produced on the Repco Spinner and subsequently woven into lightweight suiting fabrics is described. This type of yarn has been re-designated *Repco wrapped core-spun yarn.*

EXPERIMENTAL

Under conventional ring spinning conditions, a yarn linear density of 39 tex (1/26^{s} metric) was considered to be about the finest yarn that could be spun commercially from Kid Mohair. Using the technique described earlier on the Repco Spinner it was found that super kid mohair could be spun to much finer yarn linear densities than previously known. It must be noted, however, that the resultant yarn contained 4,4 tex of nylon and, therefore, as the yarn linear density was decreased the percentage of nylon increased and furthermore the higher amount of twist inserted in the finer yarns had the effect of reducing the lustre of the mohair yarn to some extent.

Six wrapped core-spun STT yarns were produced from a lot of super kid mohair (mfd. 23,0 μm, CV *per cent* 35), of 37, 32, 28, 24, 20 and 16 tex. A conventional 37 tex ring spun yarn was also spun (nominal twist 370 tpm) for comparison purposes. Table I gives the details and composition of the yarns.

It can be seen from Fig. 1 that the nylon core is completely surrounded by the mohair fibres, and that the nylon filaments of the wrapper yarn are also partially obscured by the outer fibres of the yarn.

An all-wool worsted yarn R30 tex S600/2Z900 was spun on a ring spinning system from a 70^{s} quality South African merino wool for use as a standard warp yarn. All the yarns were electronically cleared on a Schlafhorst IKN winder equipped with an Uster classimat recorder.

Yarn Dyeing:

The all-wool yarn was first scoured using 0,5 g/ℓ ®Ultravon HD (Ciba Geigy) and 4 *per cent* sodium chloride (o.m.f) for 20 minutes at 40° C followed by two rinses.

The yarn was then dyed black using 6,5 *per cent* ®Coomassie black B (ICI) according to standard recipe.

The seven lots of yarn shown in Table I were scoured as described for the

TABLE I

DETAILS OF WRAPPED CORE-SPUN MOHAIR YARNS AND A CONVENTIONAL RING SPUN YARN. (Tex TF. 2250)

Yarn	Composition %		ST roller load (cN)	ST (turns per half cycle)	STT (t p m)	No. of fibres per cross-section (calculated) *
	Mohair	Nylon				
37 tex (Ringspun)	100	—	—	—	S370	50
37 tex Repco	88	12	200	21,5	S370	57
32 tex Repco	86	14	200	25,4	S400	51
28 tex Repco	84	16	200	25,0	S425	45
24 tex Repco	82	18	200	29,5	S460	40
20 tex Repco	78	22	200	31,2	S500	35
16 tex Repco	73	27	200	29,6	S560	29

*In the case of Repco yarns includes 14 filaments.

Fig. 1 is a photomicrograph of a wrapped core-spun STT yarn (37 tex).

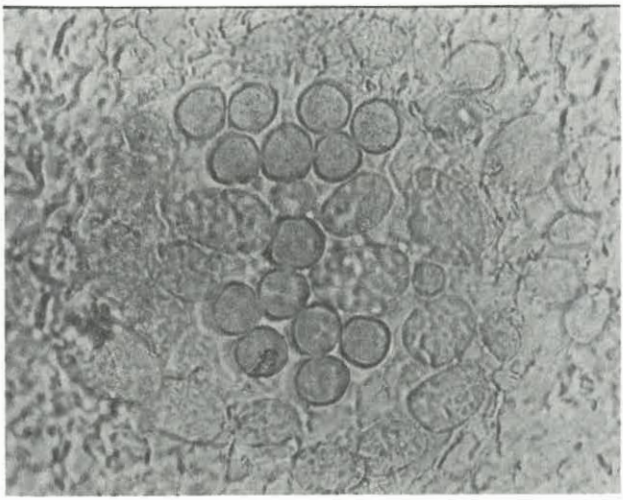


Fig. 1 – Photomicrograph of a wrapped core-spun STT yarn (88% mohair, 12% nylon).

TABLE II

PLAIN FABRIC DETAILS

Fabric	Nominal Mass (g/m^2)	Colour/yarn tex	Fabric Composition (%)		
			Wool	Mohair	Nylon
A8 control	155	Red/37 (ring-spun)	47	53	—
A7	155	Brown/37	47	47	6
A6	155	Brick/37	47	47	6
A5	155	Mustard/32	47	46	7
A4	150	Turquoise/28	48	44	8
A3	145	Blue/24	50	41	9
A2	140	Green/20	53	37	10
A1	130	Tan/16	56	32	12

all-wool warp yarn, and each lot was dyed a different shade using ®Lanasol reactive dyes (Ciba Geigy).

Weaving:

The weaving of the mohair suiting fabrics was divided into three series so as to identify three different finishing procedures. All the fabrics woven were of plain weave construction. To differentiate between the three series different warp and weft checking patterns were used, and each series of fabrics were finished independently in order that the various finishing processes could be compared.

Series A — Plain fabrics

Several fabrics were woven using a standard all-wool warp of 3736 ends (R30 tex S600/2Z900). The ends were drawn in on four heald staves in straight draft order, two ends per dent in a 56 dents per inch reed (22,05 ends per cm). The fabrics were woven in a 190 cm Saurer 100 WT 4 box, pick and pick loom, fitted

with dobby. The fabrics were all of plain weave construction and each mohair yarn lot (shown in Table II) was woven as a weft yarn. Only the pick density was changed in an attempt to maintain the fabric mass per unit area constant.

The 37 tex Repco wrapped core-spun yarn (brown) was woven with 20,5 picks/cm and the fabric produced was divided into *two* parts for finishing (A7 and C7). The 37 tex ring-spun yarn was very weak and could not be woven satisfactorily. The six other yarns, 37 tex (brick red,) 32 tex (mustard), 28 tex (turquoise), 24 tex (blue), 20 tex (green) and 16 tex (tan) were woven with 20,5, 23,6, 25,6, 27,6, 29,9 and 31,9 picks per centimetre respectively. By increasing the pick density to compensate for the lower yarn linear density the stability of the fabric was maintained although the percentage of weft was reduced whereas the percentage of nylon increased.

Table II shows the calculated percentages of wool/mohair/nylon in the fabrics and the fabric mass in g/m^2.

A more ideal situation would have been to keep the setts approximately square and to have prepared a specific all-wool warp for each mohair weft used. As a result of this lighter fabrics could have been produced. Further trials will be carried out in an attempt to produce such ultra-light weight fabrics.

The fabrics were inspected, burled and mended before finishing.

Finishing:

The fabrics were sewn end to end, continuous scoured open width at 35° C and washed off at 40° C. The fabrics were beamed wet at 65° C for 16 hours and then stentered at 130° C. Cropping was carried out four times on the face and twice on the back, followed by steaming and brushing, blowing, paper pressing with a change of folding, and finally autoclave decatising (KD).

Series B — Glen Check Fabrics:

Two plain weave fabrics were made using two shades in the warp and a combination of two different shades in the weft. A second weavers beam was produced, end and end of black and light grey and this warp was drawn in to the following colour pattern:

Black	1		2		2	
Grey		1		2		2
	14T			6T		
	14	14	2	12	12	2

TOTAL: 56 ends per repeat

and the weft colour pattern was:

Shade A	1		2		2	
Shade B		1		2		2
	16T			6T		
	16	16	2	12	12	2

TOTAL: 60 picks per repeat

The details of the two fabrics are shown in Table III:

TABLE III
GLEN-CHECK FABRIC DETAILS

Fabric	Nominal Mass (g/m^2)	Colour/yarn tex	Fabric Composition (%)		
			Wool	Mohair	Nylon
BF	150	Turquoise/28 Mustard/32	51	42	7
BG	140	Turquoise/28 Blue/24	54	38	8

A third fabric (BE), 160 g/m^2, made from 100 *per cent* wool yarns (ring-spun) R30 tex S600/2Z900 was also incorporated as a control.

The three fabrics were each woven with 22,04 picks/cm in order that the colour and weave effect should remain unaltered. These fabrics were inspected, burled and mended before finishing.

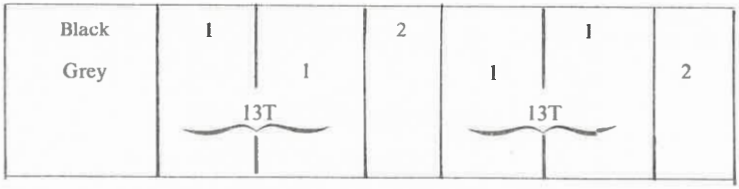
Finishing:

The above three fabrics were crabbed at 80°C, scoured (open width) and washed off at 35°C. The fabrics were beamed wet at 65°C for three hours,

hydro-extracted and stenter dried at 90° C, steamed, brushed and cropped twice on the face and once on the back and decatised, followed by paper pressing with a change of folding and finally autoclave decatised (KD).

Series C — Interlacing Check Fabrics:

Four plain weave fabrics were made using two shades in the warp and combinations of two different shades in the weft. The warping pattern was as follows:



TOTAL: 56 picks per repeat

The weft patterning was similar except that the repeat was lengthened as the yarn linear densities decreased so that the checks remained the same size. The repeats for the four fabrics were 56, 60, 64 and 68 picks for fabrics CA, CB, CC, and CD respectively. The pick density used was also changed to 22,0, 23,6: 25,2 and 26,8 respectively. The details of the four fabrics are shown in Table IV:

TABLE IV

INTERLACING-CHECK FABRIC DETAILS

Fabric	Nominal Mass (g/m^2)	Colour/yarn tex	Fabric Composition (%)		
			Wool	Mohair	Nylon
CA	155	Brick/37 Mustard/32	48	45	7
CB	150	Mustard/32 Turquoise/28	49	43	8
CC	145	Turquoise/28 Blue/24	51	40	9
CD	140	Blue/24· Green/20	53	38	9

The above four fabrics plus a length of plain fabric, brown/37 tex yarn, designated C7 were mended before finishing. Two other commercial control fabrics C9 and CH were included in this lot and finished as follows:

Finishing:

The above seven fabrics were crabbed at 75°C followed by hydro-extraction, stentering, singeing on face and back, rope scouring, stentering, picking and fine mending, paper pressing, full decating and sponging (open tensionless steaming plus semi-decating).

Altogether 18 lengths of fabric were therefore produced and these were subjected to certain physical tests as described by Smuts and Hunter[3].

RESULTS AND DISCUSSION

TABLE V
PHYSICAL PROPERTIES OF REPCO WRAPPED CORE-SPUN MOHAIR STT YARNS

	Linear Density (tex)	Actual STT (t p m)	Breaking Strength (cN)	Extension (%)	Irregularity (% CV)	Hairiness (hairs/m)
36 tex Ringspun (Commercial Control)	36,1	455	207,0	17,9	19,8	102
37 tex Ringspun (Control)	34,5	327 (very low twist)	45,7	13,5	18,4	148
37 tex Repco	36,1	377	257,9	14,4	18,7	60
32 tex Repco	31,9	401	240,7	17,5	20,8	59
28 tex Repco	28,3	424	229,9	19,2	21,8	55
24 tex Repco	24,2	462	220,5	22,7	23,5	56
20 tex Repco	20,8	473	211,3	26,4	26,3	42
16 tex Repco	16,2	531	208,2	32,6	29,9	38

GENERAL

Table I shows the details of the Repco wrapped core-spun mohair STT yarns. It can be seen that as the yarn linear density was decreased the percentage of mohair was decreased and the percentage of nylon in the yarn increased. The ST twist increased for the finer yarns. A standard TF 2250 was used when converting to STT yarn. It was subsequently found unnecessary to keep to Repco standards[2] for STT turns/m when this technique was used; much lower STT turns per metre independent of the ST turns per half-cycle were possible. Also, it has been found that much lower yarn densities could be spun and the usual number of fibres per cross-section of around 50 (absolute minimum is 35 in the case of wool) considered essential for good spinning does no longer apply. Yarns with as low as 18 mohair fibres per yarn cross-section have been produced.

Table V gives the physical properties of the yarns and it can be seen that, when compared with a normal 37 tex ring-spun yarn the Repco wrapped core-spun yarns are stronger. For two similar yarns, eg. 37 tex ring and 37 tex Repco of similar twist value, the Repco yarns were much stronger and had higher extensions and the yarn irregularity was similar. The commercial yarn (control) had much higher twist and was more irregular. Yarn hairiness results were considerably lower for the Repco wrapped core-spun yarns. It is considered that this wrapped core-spun yarn can be classed as a *singles yarn.*

Tables II, III and IV show the percentage composition of the fibres used in the three sets of fabrics. The 'A' series, plain fabrics were finished by one finishing procedure; for the 'B' series (Glen Check fabrics), another procedure was followed and the 'C' series, interlacing check fabrics, were finished via a commercial finishing process. Table VI shows certain physical properties of the 18 fabrics thus produced. By judicial grouping of the fabrics several comparisons can be made.

The effect of using Repco wrapped core-spun mohair yarns compared with conventional ring-spun 100 *per cent* mohair yarns.

A direct comparison of such two fabrics can be made by comparing fabrics A6 and A8 (Repco and ring respectively). These two fabrics were woven to the same specification and are of similar mass, sett and thickness. The air permeability of the fabric A8 was slightly higher than that of A6 but could probably be attributed to the slight variation in fabric mass. The fabric A6 had a higher tensile strength in the weft direction and also a higher extension at break (it must be remembered that all the fabrics were woven using a standard all-wool warp throughout and also of fixed warp thread density therefore any variations in fabric properties are due to changes in either weft linear density or type of spun yarn or pick density). Fabric A6 also had a slightly lower drape coefficient and a marginally lower felting shrinkage and marginally better AKU wrinkle

TABLE VI
PHYSICAL PROPERTIES OF PLAIN MOHAIR SUITING FABRICS WOVEN FROM REPCO CORE SPUN/FILAMENT WEFT YARN USING AN ALL-WOOL WARP YARN

Fabric Lot Number	Fabric Mass per Unit Area (g/m^2)	Fabric Thickness (mm)	SETT		Air Permeability $m\ell/s/cm^2/cm$ water pressure		Martindale Abrasion Mass loss after 10 000 (%)	Pilling (IWS Rating)	Bursting Strength (kN/m^2)	Tensile Properties				Drape Coefficient (%)	Monsanto Crease Recovery Angles (De-aged and Creased at 20° C/65% RH) (°)			Bending Length (cm)			Flexural Rigidity (mN/mm)			Area Shrinkage		A.K.U. Wrinkling (De-aged)					
										Breaking Strength (N)		Extension at Break (%)												Relaxation Shrinkage (%)	Felting Shrinkage (%)	S.D. of Mean Wrinkle Height (mm)			Visual Rating *		
			ends/cm	picks/cm		5 cm				Warp	Weft	Warp	Weft		Warp	Weft	W + F	Warp	Weft	Mean	Warp	Weft	Mean			Warp		Mean	Warp	Weft	Mean
A1	149	0,319	26,4	31,1	13,8	11,5	15,4	5	730	257	285	22,1	49,8	50,8	152	138	290	1,80	1,26	1,53	8,45	2,90	5,67	2,9	10,2	0,22	0,30	0,26	2,0	1,0	1,5
A2	151	0,329	26,0	29,1	10,1	9,3	11,1	5	743	245	285	22,3	45,1	52,1	154	139	293	1,74	1,46	1,60	7,79	4,60	6,19	3,3	2,2	0,23	0,24	0,24	2,5	1,1	1,8
A3	157	0,332	26,0	26,8	9,6	8,5	15,2	5	743	258	275	23,0	39,8	51,2	143	144	287	1,76	1,40	1,58	8,38	4,22	6,30	3,8	9,7	0,29	0,30	0,30	1,8	1,0	1,4
A4	162	0,341	26,4	25,2	9,7	8,4	14,1	5	768	263	292	25,6	36,5	51,6	151	141	292	1,67	1,44	1,55	7,39	4,74	6,06	3,6	7,0	0,27	0,38	0,33	2,1	1,6	1,9
A5	164	0,349	24,8	23,6	11,9	9,9	8,7	5	765	241	295	26,4	27,9	51,6	151	147	298	1,64	1,50	1,57	7,08	5,42	6,25	3,5	3,5	0,22	0,29	0,25	2,5	1,1	1,8
A6	159	0,335	24,0	20,9	17,3	13,4	9,5	5	740	254	252	31,5	25,6	51,2	139	148	287	1,59	1,50	1,55	6,26	5,25	5,75	3,3	14,7	0,19	0,30	0,24	2,6	1,0	1,8
A7	164	0,352	25,2	20,5	15,7	12,2	6,3	5	782	255	275	32,4	24,8	53,7	148	147	295	1,59	1,60	1,59	6,46	6,58	6,32	3,8	9,7	0,25	0,33	0,29	2,1	1,0	1,6
A8 (control)	150	0,323	24,4	20,5	22,7	15,8	7,9	5	722	243	212	32,8	18,1	53,0	147	157	304	1,60	1,67	1,63	6,02	6,84	6,43	3,6	16,7	0,26	0,30	0,28	2,0	1,0	1,5
BE (All wool control)	159	0,340	25,6	22,8	15,1	11,9	4,0	5	724	249	238	31,0	31,4	52,5	141	144	285	1,64	1,52	1,58	6,82	5,43	6,12	4,6	15,3	0,18	0,21	0,20	2,5	2,3	2,4
BF	155	0,342	24,8	23,6	14,5	11,6	9,1	5	761	260	277	30,3	30,2	54,3	152	153	24,8	1,73	1,56	1,65	7,86	5,76	6,81	3,9	12,4	0,26	0,30	0,28	2,0	1,6	1,8
BG	145	0,346	26,0	24,0	19,6	15,2	11,7	5	743	262	249	25,3	31,3	53,6	141	136	277	1,75	1,47	1,61	7,61	4,51	6,06	4,4	16,7	0,19	0,29	0,24	2,0	2,0	2,0
CA	158	0,323	24,4	22,4	12,2	10,0	7,8	5	772	250	296	30,5	25,1	54,5	154	150	304	1,61	1,68	1,64	6,46	7,34	6,90	3,6	11,5	0,25	0,27	0,26	2,0	2,0	2,0
CB	151	0,316	25,2	23,6	14,9	11,9	9,5	5	766	254	269	28,1	26,3	55,1	154	146	300	1,64	1,61	1,62	6,56	6,17	6,36	3,2	11,3	0,21	0,33	0,27	2,3	1,6	2,0
CC	147	0,306	24,8	25,6	16,3	12,9	8,4	5	755	251	278	27,0	26,6	53,7	152	142	294	1,70	1,58	1,64	7,02	5,75	6,38	3,8	16,2	0,21	0,19	0,20	1,8	1,6	1,7
CD	144	0,319	24,0	28,0	16,0	12,9	12,1	5	748	261	277	27,2	32,6	53,6	158	151	309	1,67	1,50	1,59	6,57	4,86	5,71	3,0	11,5	0,21	0,31	0,26	2,0	2,0	2,0
C7	162	0,348	24,8	20,5	14,5	11,9	7,8	5	779	251	275	31,3	24,3	54,1	154	154	308	1,51	1,71	1,61	5,43	7,88	6,65	2,7	7,2	0,15	0,33	0,24	2,5	1,0	1,7
C9 (Plain) (conventional)	183	0,357	21,7	20,1	13,7	11,6	5,0	5	826	256	319	27,5	26,9	56,3	160	158	318	1,58	1,95	1,77	7,07	13,20	10,13	3,5	13,5	0,27	0,20	0,24	2,0	1,8	1,9
CH (Fancy) (conventional)	191	0,386	21,3	21,7	10,8	9,6	5,7	5	846	250	340	32,9	21,3	54,0	148	139	287	1,45	1,90	1,67	5,67	12,70	9,18	3,8	10,2	0,20	0,27	0,24	2,0	2,0	2,0

* 1 is poor
5 is good

resistance. However, the crease recovery angles of the A6 fabric were slightly lower than those of A8.

The effect of changing yarn linear density (Repco only) and corresponding pick densities. ('A' range of fabrics)

The results of tests on fabrics A1 to A6 illustrate the effect of yarn linear density. An attempt was made to keep the fabric mass (g/m^2) constant at around 155 to 160 g/m^2 but as can be seen slight variations occurred (149 to 164 g/m^2). For practical reasons slightly lower pick densities than calculated had to be used and therefore these slight differences in fabric mass per unit area occurred but can be considered within practical tolerances bearing in mind that all other parameters such as warp yarn linear density and warp ends per cm were kept constant.

It can be seen that the air permeability of the fabrics decreased as the yarn linear density increased. There was no consistent difference in pilling, drape, crease recovery or any other physical parameter with the exception that the coarser yarns (which had an increase in percentage of mohair fibres) produced fabrics of higher lustre and better abrasion resistance.

A comparison of mohair Repco fabrics with an identical all-wool control ('B' range of fabrics, including fabric BE — all-wool control).

It can be seen that the three fabrics BE, BF and BG were all of similar mass, thickness and sett. The all-wool control fabric produced from fine worsted yarns was in fact slightly heavier, although this difference was small. The BF fabric was slightly heavier than the BG fabric and had the highest wrinkle recovery angles, but in general the fabric properties of all three fabrics were considered to be very similar. The only consistent difference observed was that the all-wool fabric had the better AKU wrinkle resistance and the better abrasion resistance. A probable explanation for this was the high twist used in the all-wool weft ring-spun yarn compared with the low twist used in the Repco wrapped core-spun mohair yarn.

Comparison of the effect of various finishing procedures on the physical properties of fabrics

Although the fabrics from series 'A', 'B' and 'C' appear quite different, they are in fact all plain weave fabrics and direct comparisons were made between the three series of fabrics. For example, CB, BF and A4 were compared and similarly CC, BG and A5 were compared. It can be seen that A4 and A5 fabrics had the lowest air permeabilities and the highest masses. The fabrics CB

and CC were much thinner due to the different finishing procedure employed and possibly the result of the fabrics having been singed. This was reflected in fairly high air permeability results. Despite fabrics CB and CC being the thinnest they were relatively stiff. The fabrics A4 and A5 had the lower drape coefficients. It was significant that the 'C' series fabrics had, generally, the highest crease recovery angles and marginally better wrinkle resistance.

Comparison of fabric from Repco wrapped core-spun yarns with conventional (commercial) mohair suitings using ring-spun yarns

Although the commercial (control) fabrics C9 and CH were of greater mass than the two nearest Repco fabrics C7 and CA respectively used for comparison, there was not all that much difference to chosse between them in respect of physical properties. C9 and CH fabrics were thicker and had slightly lower air permeabilities. These two fabrics also suffered slightly lower loss in mass, i.e. a slightly better abrasion resistance, as well as a slightly higher bursting strength and a significantly higher tensile strength in the weft direction than the C7 and CA fabrics. These differences, however, probably could be attributed to the differences in their mass. All 'C' fabrics had the best crease recovery angles and the crease recovery of the experimental fabrics (C7 and CA) compared favourably considering the difference in mass. In respect of all other properties the experimental fabrics finished by the 'C' finishing process were as good as the conventional fabrics.

SUMMARY

Very fine wrapped core-spun yarns as low as 16 tex were produced on the Repco spinner. Spinning performance was excellent at 220m/minute. Normal ST roller pressures were used and the yarns were uptwisted with very few turns/m to retain the natural lustre of the fibres.

All the mohair Repco yarns were woven using a standard all-wool warp and as the yarn linear density of the weft was changed a corresponding change in pick density ensured that fabrics were produced having a mass of 150 to 160 g/m^2. The fabrics were tested for physical properties and, although there were only marginal differences between various lots with different finishes, it can be stated that in general, fabrics woven from Repco spun yarns had lower drape coefficients, lower felting shrinkage and slightly better wrinkle resistance, but their crease recovery was slightly inferior to the conventional fabrics. The different finishing procedures used produced only marginal differences in fabric properties. The 'C' series of fabrics had the best wrinkle recovery angles and had marginally better wrinkle resistance and in all respects the Repco fabrics finished by the 'C' process were as good as the conventionally produced fabrics tested.

The advantages accrued when using Repco wrapped core-spun mohair

yarns in lightweight mohair suiting fabrics are:

(i) very much lighter yarn linear densities can be spun;
(ii) higher spinning speeds and better performance;
(iii) less yarn hairiness;
(iv) improvements in certain physical properties of the fabrics;
(v) better performance of yarns in preparation and weaving, and
(vi) lighter weight fabrics of finer construction can be woven.

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THE USE OF PROPRIETARY NAMES

The fact that chemicals with proprietary names have been mentioned in this report does not in any way imply that SAWTRI recommends them or that there are not substitutes which may be of equal or better value.

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