

Table 4. Pair wise multiple comparison procedure using Fisher LSD method*. Comparisons for factor: blend ratio.

Comparison	Diff of means	LSD (alpha=0.050)	P	Diff >= LSD
'0:100 vs. '100:0	0.467	1.181	0.389	No
'0:100 vs. '67:33	0.367	1.181	0.495	Do Not Test
'0:100 vs. '50:50	0.233	1.181	0.661	Do Not Test
'0:100 vs. '33:67	0.167	1.181	0.753	Do Not Test
'33:67 vs. '100:0	0.300	1.181	0.574	Do Not Test
'33:67 vs. '67:33	0.200	1.181	0.706	Do Not Test
'33:67 vs. '50:50	0.0667	1.181	0.900	Do Not Test
'50:50 vs. '100:0	0.233	1.181	0.661	Do Not Test
'50:50 vs. '67:33	0.133	1.181	0.801	Do Not Test
'67:33 vs. '100:0	0.100	1.181	0.850	Do Not Test

* A result of „Do Not Test” occurs for a comparison when no significant difference is found between two means that enclose that comparison.

Table 5. Pair wise multiple comparison procedure using Fisher LSD method*. Comparisons for factor: linear density.

Comparison	Diff of means	LSD (alpha=0.050)	P	Diff >= LSD
23.6 tex vs. 39.4 tex	3.180	0.915	<0.001	Yes
23.6 tex vs. 29.5 tex	1.820	0.915	0.002	Yes
29.5 tex vs. 39.4 tex	1.360	0.915	0.009	Yes

* Yes indicates that significant difference exists.

yarn characteristics was investigated in this study. It is observed that the ratio of recycled polyester has a significant influence on the overall quality of recycled polyester/cotton blended yarn. An increase in recycled polyester content increases the tenacity elongation at break and hairiness and decreases unevenness, thin places, thick places and neps, and a decrease in linear density increases tenacity, elongation at break, unevenness, thin places, thick places, neps and hairiness. Statistical analysis reflects that both the blend ratio and linear density have a significant influence on tenacity, elongation at break, thin places, thick places, neps and hairiness. However, with reference to unevenness, a significant difference is reported only for linear density and not for the blend ratio. Overall the ratio of recycled polyester has a significant influence on the quality of recycled polyester/cotton blended yarn. Recycled polyester and cotton blending can be suitably optimised to meet end-use requirements.

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Contact:

Institute of Textile Engineering and Polymer Materials
University of Bielsko-Biala
Willowa 2, 43-309 Bielsko-Biala, POLAND
+48 33 8279114,
e-mail: itimp@ath.bielsko.pl
www.itimp.ath.bielsko.pl