***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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