## BENEFITS OF BLENDING BARKI WOOL WITH POLYESTER

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In the present study, 700 Kg of Egyptian Barki sheep wool was collected from farms of Desert Research Center, Egypt, to study the effect of subjective grading system and blending with polyester on some wool and yarn characteristics. Wool was graded subjectively into coarse, fine and raw, then polyester was added to each grade at the following percentages (0%, 15%, 25%, 35% and 45%) to make wool-polyester blends. Staple and yarn strengths were greater in both coarse and fine grades compared with raw wool. Staple elongation of fine grade reached 3 times compared with coarse grade and twice as much as raw wool grade. Also, in 100% wool blend, yarn elongation of fine grade was twice as much as both coarse and raw grades. Among different grades and blends, fine grade had the highest yarn friction followed by other grades. Generally adding polyester to coarse and fine grades leads to improve yarn strength compared with raw grade. Adding 15% polyester caused the highest improvement among other percentages. Correlations among traits were also discussed.

Keywords: Wool, Polyester, Blend, Yarn, Strength, Elongation and Friction.