

Supanicha Srivorradatpaisan 2010: Hand Woven Thai Fabrics from Filament Silk Yarn and Spun Silk Yarn. Master of Science (Home Economics), Major Field: Home Economics, Department of Home Economics. Thesis Advisor: Associate Professor Suwit Rattananan, B.F.A. 98 pages.

The specific objectives of this research were to 1) study characteristics of hand woven fabrics made from filament silk yarn and spun silk yarn 2) compare the physical properties of hand woven fabrics with different weaving patterns and different warp and weft yarns 3) evaluate the consumer satisfaction of hand woven fabrics made from filament silk yarn and span silk yarn. Three weaving patterns used were plain, twill, and figured weaves. There are four different fabrication methods using weft and warp yarns: filament silk as warp and weft yarns; filament silk as warp yarns, spun silk as weft yarns; spun silk as warp and weft yarns; and spun silk as warp yarns, filament silk as weft yarns.

Results from the study revealed plain weave, the twill weave, and the figured weave fabrics have similar properties in terms of level of luster in moderate level and whiteness. All three weaving patterns that have different types of warp and weft yarns which have nearly the same amount of warp yarns per will have different amount of weft yarns count per inch. The Nevertheless the fabrication with filament silk as warp and weft yarns yields highest level of luster, whiteness and weft yarns thread count per inch.

Weaving patterns had effects on physical characteristic in terms of tensile strength and tearing strength in both warp and weft directions, slippage of yarn along the seam, dimensional change in warp and weft directions after washing, and abrasion resistance with statistical significance of .01. Different methods of using warp and weft yarns provided equivalent effect on physical properties except only tearing strength in warp direction was affected. Interaction between weaving patterns and methods of using warp and weft yarns had effects on tearing strength in warp direction, slippage of yarns along the seams, and dimensional change in warp and weft direction after washing with statistical significance of .01 and .05, respectively.

Satisfactory assessment study on sample woven fabrics found plain weave and figured weave fabrics produced with spun silk as warp yarns and filament silk as weft yarns obtained the highest preference score, while twill weave fabric produced with filament silk as warp and weft yarns obtained the highest preference score.

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Student's signature

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Thesis Advisor's signature