

Title: Utilization of flax, lycell and spandex fibers for development of composite yarns and preparation of woven and knit fabrics

Objectives:

1. To evaluate physical and chemical properties of the selected fibers and yarns
2. To develop core spun and cover spun yarns of selected fibers and assessment of their physical properties
3. To prepare woven and knit fabrics using developed yarns and evaluation of their properties
4. To assess consumers' acceptability for prepared fabrics, products construction and their cost calculation

Technology developed:

- Cover and core spun yarn with flax fibers, lyocell fabrics and spandex filament
- Thicker fabric with better mechanical comfort and aesthetic properties from core and cover spun yarns using weaving and knitting techniques.

Developed Knitted fabrics properties:

1. Single jersey fabric
2. Good pilling and abrasion resistant
3. Good air permeability
4. Good wickability, thermal resistant, easily dyeable with very good color fastness



Cost of Crop top:, Fabric code:

CFX_{Ly}LY_{sp20}

Warp: CFX_{Ly}, Weft: CLY_{sp20}

Fabric used: 1 meter

Fabric cost: ₹ 534/17 mtr

Embroidery cost: ₹ 80/-

Stitching cost: ₹ 150/-

Total cost: ₹ 764/17

Cost of Top:

Fabric code: CFX_{Ly}Ly

Warp: CFX_{Ly}, Weft: Ly

Fabric used: 1 meter

Fabric cost: ₹ 254/85mtr

Stitching cost: ₹ 150/-

Total cost: ₹ 404/85

Cost of Dress: Fabric code:

CFX_{Ly}LY_{sp40}, Warp: CFX_{Ly}, Weft:

CLY_{sp40}

Fabric used: 1 meter, Fabric cost: ₹ 557/17 mtr

Cost of net fabric: ₹ 80/- , Cost of pink fabric: ₹ 25/-

Stitching cost: ₹ 180/- ,

Total cost: ₹ 842/17 dress

CFX cotton flax, Ly lyocell

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