

ENGINEERING SPECIFICATION
STATE OF INDIANA
DEPARTMENT OF CORRECTION
INDIANA CORRECTIONAL INDUSTRIES (ICI)

I. OBJECTIVE:

To provide the minimum requirements for Twill Woven Fabric used for the manufacturing of garments.

II. REQUIREMENTS:

| <u>CHARACTERISTICS</u> | <u>PHYSICAL SPECIFICATIONS</u> | <u>TEST METHOD/ STANDARD</u> |
|--|--|----------------------------------|
| A. Fiber Content ($\pm 5\%$) | 65% Polyester/35% Cotton First Quality Only | |
| B. Color | See Method of Specifying | |
| C. Weight (oz./sq. yd.) | 7.0 – 7.5 ounces | ASTM D3776 |
| D. Fabric Width | 60 inches, minimum cutting width with clean, smooth, uniform, plain selvages. (ASTM D3773) | |
| E. Thread Count Warp Filling | 82 40 | |
| F. Weave | 2x1 | |
| G. Breaking Strength lbs Warp Fill | 190 lbs 100 lbs | ASTM D5034 |
| H. Non-Fibrous Material | 8% max by weight | AATCC 97 |
| I. Shrinkage | 3.0% maximum in warp and fill directions after 3 launderings at the following conditions (AATCC No. 135) Machine Cycle: Normal or Cotton Sturdy Washing Temperature: $140 \pm 5^{\circ}\text{F}$ | AATCC 135 |

| ORIGIN DATE | DESCRIPTION | DOCUMENT NO. |
|------------------|--------------------------------------|----------------|
| January 28, 2018 | FABRIC, TWILL, 7.5 OZX60, CROSS-DYE, | 17859-000 |
| GENERATED BY | | RELEASE DATE |
| R. Gibson | | March 27, 2019 |
| ERN NO | | REVISION NO. |
| 190001 | | A |

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Drying Procedure: Tumble Dry – Cotton Sturdy

| | |
|-------------------|-------------|
| <u>Laundering</u> | AATCC 61-3A |
| Shade Change | 4.0 |
| Staining | 4.0 |

J. Shading

Shade to be consistent within each lot. For each shipment there will be no more variance between lots than a gray scale rating of 4. Shade evaluation to be made using the AATCC gray shade chart.

K. Workmanship

The material will be free from avoidable imperfections in manufacture and from defects or blemishes affecting the appearance or serviceability, otherwise it will be grounds for returning the merchandise at the vendor's expense. The minimum length without a seam shall be 60 yards.

III. PROCUREMENT:

A. Packaging/Shipping

Each roll will be ticketed or labeled to indicate weight and yardage per roll, the dye lot number, manufacture, supplier and part number along with a specific reference number.

Samples will be submitted with the bid (continuous 1 yard X full width) requirement of fabric being offered. PEN Products intends to test the sample to be in accordance with written specifications.

All goods will be put up on rolls in continuous length each not less than 100 yards and not more than 200 yards. Each roll must have a cardboard tube in center. Tubes shall have a minimum inside diameter of 1.25". All rolls are to be individually wrapped in sealed poly bags .006 mil thickness (minimum).

All rolls must be delivered on skids. Each skid is to represent a single Lot number.

B. Method of Specifying 17859-001 Blue

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