

**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	Dye to Fabric Swatch Provided by PEN Products. See Method of Specification on Last Page	
C. Construction	2 X 1 Left Hand Twill	
D. Weight (oz. /sq. yd.)	5.5 ounces +- 0.50 oz	
E. Fabric Width	60"-61" Width. 60" cuttable minimum	
F. Finished Count Warp Filling	$\pm 5$ 104 ends 52 picks	
G. Yarn Size Warp Fill	24/1 24/1	
<u>PERFORMANCE CHARACTERISTICS</u>		
H. Tensile Warp Fill	132 lbs $\pm 10\%$ 60 lbs $\pm 10\%$	ASTM D5034
I. Tear Warp Fill	5.1 lbs $\pm 10\%$ 3.5 lbs $\pm 10\%$	ASTM D1424

ORIGIN DATE	DESCRIPTION	DOCUMENT NO.
August 13, 2009	<b>FABRIC, TWILL WOVEN, 35% COTTON 65% POLYESTER, 5.5 OZ, 60 WIDTH</b>	<b>17645-000</b>
GENERATED BY		RELEASE DATE
J. Minchin		<b>November 4, 2021</b>
ERN NO		REVISION NO.
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J.	Shrinkage	3%	AATCC 135 3 washings
K.	Pilling-60 min.	3.5	ASTM D3512
L.	Colorfastness Requirements	<u>Lightfastness</u> 20 hr. 4.0	AATCC 16A
		<u>Perspiration</u> Shade Change 4.0 Staining 3.0	AATCC 15
		<u>Washfastness</u> Shade Change 4.0 Staining 3.0	AATCC 61-IIA
		<u>Crocking</u> Dry 4.0 Wet 3.0	AATCC 8
M.	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.	
N.	Workmanship	the material shall 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.	

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**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 (1 continuous yard x full width) requirement of fabric being offered. ICI 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 150 yards. The final piece to complete the order need not be less than 20 yards long. Each roll must have a cardboard tube in center. All rolls are to be individually wrapped in sealed poly bags .006 mil thickness (minimum).

<b>B. Method of Specifying</b>	<b>Stock Code</b>	<b>Color</b>	<b>Pantone Textile #</b>
	17645-001	Olive Gray	16-1110-TCX
	17645-002	Ski Patrol	18-1761-TCX
	17645-003	Golden Kiwi	13-0644-TCX
	17645-004	Hunter Green	19-5511 TCX
	17645-005	Scarlet Ibis	17-1361-TCX

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