



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA COMMERCIAL ITEM DESCRIPTION (PCID)

PCID NO. 1018
Eff. 12/10/2015

CLOTH: Polyester/Cotton Twill

(This item description supersedes PCID No. 1018 eff. 11/8/2013)

This Pennsylvania Commercial Item Description covers requirements for twill weave cloth which is to be used in the production of clothing, including slacks, pants, shirts, jackets, and rainwear. All twill cloth shall reflect first class workmanship, be top grade quality, and be free from defects, which could adversely affect serviceability. Product shall conform to the following requirements unless otherwise specified in the Invitation-to-Bid proposal or Purchase Order.

1. Classification - Twill weave cloth shall be classified as:

- Type 1 - 65% polyester / 35% cotton (6.5 oz)
- Type 2 - 65% polyester / 35% cotton (6.5 oz with Water Repellent Finish)
- Type 3 - 65% polyester / 35% cotton (6.5 oz) for Uniforms
- Type 4 – 65% polyester / 35% cotton (5.0 oz) for Uniforms

2. Description of Twill Material - The material shall be a blend of polyester and cotton as defined in Section 4 Construction Requirements. The yarn shall be the type typically used in the fabric industry for items of clothing. The yarns for Type 1 and 2 shall be Open End-Open End or Ring Spun (Warp)-Open End (Fill) Construction. Type 3 shall be Ring Spun (Warp)-Open End (Fill) construction. Type 4 yarns shall be MJS-MJS.

2.1 Fiber percentages shall be plus or minus 3% in accordance with the Textile Fiber Products Identification Act.

3. General Requirements -

- 3. 1 The finished cloth shall be preshrunk so that residual shrinkage shall not be more than 3% in either warp or fill direction per AATCC 135.
- 3. 2 Plied or single yarns may be utilized in the twill fabric so long as construction requirements are met.
- 3. 3 Finished widths will be specified in Bid Description. The finished fabric can be open or tucked selvedge.
- 3. 4 Finished cloth shall be put-up in bolts of one continuous piece not less than 150 linear yards nor more than 200 linear yards with minimum two-inch and maximum three-inch core.
- 3. 5 Color of fabric shall be specified by the Using Agency. Color must be consistent across the entire lot. Type 3 and type 4 twill shall be vat dispersed dyed.
- 3. 6 Each bolt of finished cloth shall be labeled, ticketed, or marked for fiber content in accordance with the Rules and Regulations of the Textile Fiber Products Identification Act. Each bolt of finished cloth shall be labeled with purchase order number, manufacturer's/mill ID, yardage and dye lot, and roll/bale number. Multiple rolls may be bundled and boxed and/or skidded for shipping, however each roll must be individually wrapped.
- 3. 7 The cloth shall meet or exceed the following minimums for colorfastness requirements unless otherwise specified in the Invitation-to-Bid proposal or Purchase Order:

Light	4.0	AATCC-16A
Perspiration	4.0 Shade Change	AATCC-15

Laundering	3.0 Staining 4.0 Shade Change 3.0 Staining	AATCC-61-III A
Crocking	3.0 Wet 4.0 Dry	AATCC-8

3. 8 Type 2 cloth shall be given a permanent type of water repellent finish. The fabric shall have a spray rating of not less than 80 when tested as described in AATCC 22. After laundering and dry cleaning, the fabric shall show a spray rating of not less than 80 when tested as described in AATCC 132 and AATCC 22.

3. 9 All types of twill shall have a pilling resistance of 3.0 minimum after 60 minutes when tested as described in ASTM D3512.

4. **Construction Requirements-** 65% Polyester/35% Cotton Twill Fabric per AATCC 20A Method # 4 and ASTM D-1909 Moisture Regains Applied.

	<u>Types 1 & 2:</u>	<u>Type 3</u>	<u>Type 4</u>
Weave (visual) 2 X 1	2 X 1	2 X 1	2 X 1
Yarns Per Inch. Min. (Warp) per ASTM D-3775.	85	85	124
Yarns Per Inch. Min. (Fill) per ASTM D-3775.	45	50	50
Weight Min. per ASTM D3776 Oz./Yd. ²	6.5 Oz./Yd. ²	6.5 Oz./Yd. ²	5.0 Oz./Yd. ²
Breaking Strength - Min (Warp) per ASTM D-5034	145 Lbs.	175 Lbs	135 Lbs.
Breaking Strength - Min. (Fill) per ASTM D-5034	65 Lbs.	70 Lbs	70 Lbs.
Tear Strength. – Min. (Warp) per ASTM D- 1424	9.0 Lbs	9.0 Lbs	5.5 Lbs
Tear Strength. – Min. (Fill) per ASTM D- 1424	5.0 Lbs	5.0 Lbs	4.5 Lbs

5. Document Sources (PCID)

(Commonwealth of Pennsylvania)
Bureau of Purchases
Quality Assurance Division
414 North Office Building
Harrisburg, PA. 17125

(Federal Specifications & Standards)
Superintendent of Documents
U.S. Government Printing Office
Pittsburgh PA. 15250-7954

(Rules: Textile Fiber Products Act)
Federal Trade Commission
Pennsylvania Ave. at Sixth St. NW
Washington D.C. 20580

(ASTM Testing Methods)
American Society Testing & Materials
100 Barr Harbor Drive
West Conshohocken, PA. 19428

(AATCC Technical Manual Methods)
American Association of Textile Chemists & Colorists
P.O. Box 12215
Research Triangle Park
Durham, NC 27709

6. Material Masters – This PCID encompasses requirements for the following material masters:

- 143377 - TWILL, POLY/COTTON PER PCID, RED BR, 1108
- 311972 – TWILL, POLY/COTTON, QUARRY GRAY
- 143378 - TWILL, POLY/COTTON PER PCID, PIRATE BLK
- 143379 - TWILL, POLY/COTTON PER PCID, INSIGNIA BLU
- 143380 - TWILL, POLY/COTTON PER PCID, BRIGHT WHITE
- 143383 - TWILL, POLY/COTTON PER PCID, FROST GRAY
- 312198 - TWILL, POLY/COTTON, ORANGERED
- 143382 - TWILL, POLY/COTTON PER PCID, STAR WHITE
- 340698 - TWILL, POLY/COTTON, BUTTERSCOTCH, 1018
- 336200 – MATERIAL, TWILL, ROYAL PRINCESS BLUE, 60

Quality Assurance Specialist: Bill Hugendubler

Quality Assurance Supervisor: Brian Vulgaris

Division Chief: Janice Pistor