

102-28

Woven Fabric Protocol

PERFORMANCE	TEST METHOD	REQUIREMENT	
Initial Package			
Physical Properties			
Fiber Content	AATCC 20 / 20A 16 CFR 303 Wool Products Labeling Act- 16CFR 300 Fur Products labelling Act - 16CFR 301 Fur Products Identification Act -15 U.S.A 69	One Fiber Only: No Tolerance Two or More Fibers: +/- 3% deviation from the contracted fiber content. Functional Fibers i.e. Spandex: +/- 2% max deviation from the contracted fiber content.	
Yarn Size	ASTM D 1059	Tolerance +/- 5 % Max	
Count	ASTM D 3775	Tolerance +/- 5 % Max	
Fabric Weight	ASTM D 3776	Deviation from contracted weight (g/m2 OR oz/yd2): +/- 5% maximum	
Flammability	16 CFR 1610 16 CFR 1615/1616	Class 1 Non-exempt fabrics must be tested in every color Pass (Acceptance Criteria) The supplier must keep all children's sleep wear test records and samples for a period of 7 years	
Dimensional Change to Home Laundering, Dry Cleaning or Hand Wash	AATCC 135 (3 washes)/AATCC 158 (3 cycles) AATCC LP2 (Length X Width) Tide ® Powder Detergent (Maximum)	FABRIC TYPE	SHRINK
		Plain weave, Twill, Sheeting	3x3
		Flannels/Dobby/ Crepe/Gauze/ Crinkle Rayon/Seersucker	5x5
		Allow 1% Growth Only	
		Dry Clean Items	
shrinkage %		2x2	
growth %		1x1	
Appearance Retention	AATCC/ASTM TS-008 Modified Tide ® Powder Detergent	Must meet all applicable Kohl's Appearance Evaluation Requirements (Refer KAR SOP)	
		Torque	Tier 1 Tier 2 3% 2%
Tensile Strength	ASTM D 5034 in lbs. (min)	Tier 1	Tier 2
		< /= 3.0 oz/sq yd	20 x 15 20x20
		3.1 to 6 oz sq /yd	25x20 30x25
		6.1 to 9 oz/sq yd	40 x35 45 x 40
		>9oz/ sq yd	60x40 75 x 50
Tear Strength	ASTM D 1424 in lbs. (min)	< /= 3.0 oz/sq yd	1.5x1.0 2.0 x 1.5
		3.1 to 6 oz sq /yd	2.0x1.5 2.5x2.0
		6.1 to 9 oz/sq yd	2.5x2.0 3.0x2.0
		>9oz/ sq yd	3.5 x 3.0 3.5 x 3.0
Seam Slippage Record as fail, if seam slippage is more than 1/4" at 15 lb load(Lab to use standard seams).	ASTM D 434 in lbs. (min)	< /= 3.0 oz/sq yd	15 20
		3.1 to 6 oz sq /yd	20 25
		6.1 to 9 oz/sq yd	25 30
		>9oz/ sq yd	30 35
Softlines Regulatory Supplemental Protocol	Refer to Protocol 501	All samples shall be reviewed against the requirements of the Softlines Regulatory Supplemental Protocol to determine if additional testing or labeling is required.	
Colorfastness			
Colorfastness to Chlorine AND Non-Chlorine Bleach	AATCC/ASTM TS-001	Shade Change: Grade 4 min	
Colorfastness to Crocking	AATCC 8/116 Original State If results fail in original state, perform after 1 Wash/Dry Cycle (Minimum)	All fabrics (except listed below): _____	
		Dry	4.0
		Wet	3.0
		Pigment Dyed/Printed, Lightly Brushed, Sand Washed, Piled, Sulphur, Denim, Indigo	
		Dry	3.5
Wet	2.0		
Analytical			
Formaldehyde	Kohl's TM-5 (only for 4 years and up) JIS L 1041:2011 – Sec. 8.1.3 & 8.1.4 Method B	Negative, If Spot Test is Positive, proceed with step 2 Children over 5T & Adults = 75 ppm max. Children's 0-5T = 20 ppm max.	
pH Value	AATCC 81	All Colorways: 5.0 – 8.0 (no tolerance)	
Performance Claims Protocol (401)	Refer to Protocol 401	All samples shall be reviewed against the requirements of the Performance Claims Protocol to determine if additional testing or labeling is required	
ADDITIONAL COLORWAY TESTING			
Flammability	16 CFR 1610 16 CFR 1615/1616	Class 1 Non-exempt fabrics must be tested in every color Pass (Acceptance Criteria) The supplier must keep all children's sleep wear test records and samples for a period of 7 years	

Formaldehyde	Kohl's TM-5 (only for 4 years and up) JIS L 1041:2011 – Sec. 8.1.3 & 8.1.4 Method A or B	Negative, If Spot Test is Positive, proceed with step 2	
		Children <u>over 5T</u> & Adults = 75 ppm max.	
		Children's 0-5T = 20 ppm max.	
pH Value	AATCC 81	All Colorways: 5.0 – 8.0 (no tolerance)	
Appearance Retention	AATCC/ASTM TS-008 Modified Tide® Powder Detergent	Must meet all applicable Kohl's Appearance Evaluation Requirements (Refer KAR SOP)	
Colorfastness to Chlorine AND Non-Chlorine Bleach	AATCC/ASTM TS-001	Shade Change: Grade 4 min	
Colorfastness to Crocking	AATCC 8/116 Original State If results fail in original state, perform after 1 Wash/Dry Cycle (Minimum)	All fabrics (except listed below):	
		Dry	4.0 min
		Wet	3.0 min
		Pigment Dyed/Printed, Lightly Brushed, Sand Washed, Piled, Sulphur, Denim, Indigo & Silk blends:	
		Dry	3.5 min
		Wet	2.0 min
REQUIRED WHERE APPLICABLE AT ADDITIONAL COST			
Colorfastness to Water * (Color block fabrics & contrast trims)	AATCC 107	Shade Change : Grade 4 min Self Staining: Grade 4 min Multi-fiber Staining: Grade 4.0 min	
Colorfastness to Sea Water * (Swimwear Only)	AATCC 106	Shade Change : Grade 3.5 min Self Staining: Grade 4 min Multi-fiber Staining: Grade 4.0 min	
Colorfastness to Chlorinated Pool Water * (Swimwear Only)	AATCC 162	Shade Change: Grade 3.5 min	
Pile Retention (Velvet, Velveteen, Velour, Corduroy and Faux Fur)	ASTM D4685 Modified Option B	Face: 250 Cycles, Grade 3.5 min. Back: 50 Cycles, Grade 3.0 min.	
Colorfastness to Perspiration – Acid Only * (Activewear/Intimates/Linings)	AATCC 15	Shade Change : Grade 4 min	
		Self Staining: Grade 4 min	
		Multi-fiber Staining: Grade 4.0 min	
Colorfastness to Light * (Outerwear/Activewear/ Swimwear)	AATCC 16.3-2012 10 AFU & 20 AFU	All Colors (except listed below):	
		Shade Change:	
		10 AFU: Grade 4.0 min	
		20 AFU: Grade 3.5 min	
		Neons/Brights/Whites/Pastels:	
		Shade Change:	
10 AFU: Grade 3.0 min			
20 AFU: Grade 2.0 min			
Stretch & Recovery /Tension & Elongation **For garments containing Spandex ** Loose fitting- Reach out to PI team	ASTM D4964-96(2012) E1 Modification: Take two 7.0 inch long width specimens from the thigh area of the garment, align the panels with face side out, stitch the two panels and parallel to the width of the specimen. Place another stitch at 5.0 inch from the first stitch, to create 5.0 inch loop circumference specimen	To be recorded as DATA ONLY: Growth: after 60 seconds Growth: after 30 minutes PASS/FAIL: Recovery: 85% min after 30 min. Report modulus at 30%, 50% & 70%. Report Elongation at 10 lbs	

(*) asterisk = ALL COLORWAYS MUST BE TESTED

Minimum Sample Size Necessary for Testing

Initial Package : 3 yards of full width fabric in darkest color

Additional Colorway : 1 yard of full width fabric in all colors.

Additional samples may be needed for items that contain two care instructions, i.e. "*For Best Results, Dry Clean*". Please consult with approved lab for the number of samples.

**Please refer to Kohl's preferred third party labs for individual and optional testing pricing

If Formaldehyde Spot Test is found positive, additional charges will incur for additional testing.

For sizes 0-5T, Formaldehyde will be added as a separate charge as it is a mandatory test for this category.

If Colorfastness to Crocking fails in the original state, additional charges will be incurred for testing after 1 wash.

Turn Around Time = 4 working days

Care Instructions with "line dry or flat dry" may require an additional day.

PROTOCOL VERSION	DESCRIPTION OF CHANGE	DATE REVISION / APPROVED BY
103-1	<ol style="list-style-type: none"> 1. Colorfastness to Abrasion-Frosting Test – Removed from Optional Testing 2. Pilling Resistance Test – Removed from Optional Testing 3. Ageing of Sulphur Dyed Fabrics Test – Changed test method option to Option 7.1 – Oven Aging 4. Tensile Strength – Changed requirements to: <ul style="list-style-type: none"> <2.0 oz/sq.yd – 15 lbs. min >2 to < 4.0 oz/sq.yd – 25 lbs. min > 4.0 - < 8.0 oz/sq.yd – 35 lbs. min > 8.0 oz/sq.yd – 45 lbs. min 	April 2007/ Ro Jain
103-2	<ol style="list-style-type: none"> 1. Appearance Retention (KAR) – Method has been changed to AATCC/ASTM TS-008 Modified. 2. Yarn Size & Fabric Count – Changed requirement +/- 5% to Report Actual Data. 3. Colorfastness to Accelerated Laundering/Dry Cleaning – Test has been removed. Have been added to Appearance Retention test. 4. Colorfastness to Crocking - Test specimen to be tested original state and after 1 wash/dry cycle. 5. Colorfastness to Light – Changed evaluation 20 AFU to 10 AFU & 20 AFU. Added requirement 3.0 for colors: Neons/Brights/Pastels and Whites. 6. Pile Retention Test – Modified method to Option B- <ul style="list-style-type: none"> Face: 250 cycles Back: 50 cycles 7. Formaldehyde Content – Test to be used on all products. Changed requirement to: <ul style="list-style-type: none"> Children over 36 months & Adults = 75 ppm max. Infants under 36 months = 0.05 Absorbency max. 8. Stretch Properties – Changed requirements: Use a 4 lbs. load for any wovens with spandex. Refer to page 3 of this protocol for requirements. 	Nov. 2008/Ro Jain
103-3	<ol style="list-style-type: none"> 1. Removed - No tolerance allowed for wool/wool blend products under the Fiber Content Protocol 2. Combined Formaldehyde spot test and full test & updated test method 3. Revised Requirement: Colorfastness to Chlorinated Pool Water- Fiber Reactive Dyes-Grade 2.5 4. Revised Requirement: Colorfastness to Light- Neons/Brights/White/Pastels: Shade Change: 10AFU: Grade 3.0 and 20AFU: Grade 2.5 5. Stretch Properties – modified load / updated requirement 	Nov.2009/Ro Jain
103-4	<ol style="list-style-type: none"> 1. Fiber Content Added the Fur labeling and Identification acts and wool #16 cfr 300 2. Analytical: Formaldehyde-added Kohl's TM-5 3. Stretch & Recovery: Added "MODIFIED" 4. Removed Aging of sulphur dyed etc. section 5. Added Pile retention for faux fur, velour – Kohl's TM-19 	Nov. 2011/Ro Jain

PROTOCOL VERSION	DESCRIPTION OF CHANGE	DATE REVISION / APPROVED BY
Revised 102-5 (combined 103,104,105)	Changed to Woven Fabric Protocols Added: PH Seam slippage Modified: Formaldehyde requirements Cf to Perspiration Cf to light Cf to crocking on pigments, indigo dyed Stretch and recovery	Sept 2013 /Vinoth Deenadayalan
102-6	1) Removed pricing for testing/took out Intertek/added approved lab statement	October 6th 2014/Nov. 31 2014/Leah Gross-Hutchison
102-7	1) Updated pH for whites	9/2015- Michelle Zydek
102-8	1) Update pH for Whites	4/2016-Jackie Deppisch
102-9	1) Updated Formaldehyde age range from 0-4T to "0-5T"	4/2017 - Becky Becker
102-10	1) Updated crocking requirements to read: Pigment Dyed/Printed, Lightly Brushed, Sand Washed, Piled, Sulphur, Denim, Indigo & Silk blends:	5/2017 Becky Becker
102-11	1) Updated pH values to 5.0-8.0 (zero tolerance)	October 2018 - Becky Becker
102-12	1)Updated Dimensional Stability Requirements 2) Removed Tiers from Colorfastness to Crocking	November 2018/ Jackie Deppisch
102-13	1) Updated Fabric Count test to be ASTM D3775 2) Removed "Ultra" from Tide detergent for Appearance Retention testing and Dimensional Change 3) Updated Formaldehyde testing to be most current 4) Added back pH value AATCC 81 test method	December 2018/Charlene Swanson
102-14	1) Updated pile retention to ASTM D4685	April 2019/Charlene Swanson
102-15	1) Updated Count to only show woven's req	April 2019/Jackie Deppisch
102-16	1) Updated Dimensional Stability handwash test method to AATCC LP2	April 2019/ Becky Becker
102-17	1) Added Tension & Elongation testing	June 2019/Jackie Deppisch
102-18	1) Updated S&R requirements	November 2019/Jackie Deppisch
102-19	1) Updated formaldehyde to just have method B listed 2) Updated dryclean to be 3 cycles instead of 1 cycle	January 2020/Charlene Swanson
102-20	1) Updated S&R requirements	February 2020/Jackie Deppisch
102-24	1) Updates to Tiers	August 2021/ Jackie Deppisch
102-25	1) Updated formatting of document	September 2021/Charlene Swanson
102-26	1) Added test line for all performance claims	March 2022 / Becky Becker
102-27	1) Added Reference to Protocol 501	October 2022 / Kevin Makocy
102-28	1) Updated S&R Recovery requirements from 60 seconds to 30 min.	March 2023/ Jackie Deppisch