

101-36
Knit Fabric Protocol

PERFORMANCE	TEST METHOD	REQUIREMENT		
Initial Package				
Physical Properties				
Fiber Content	AATCC 20 / 20A 16 CFR 303 Wool Products Labeling Act- 16 CFR 300 Fur Products labelling Act - 16 CFR 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 3887, AATCC/ASTM TS-002	Tolerance +/- 5 % Max		
Fabric Weight	ASTM D 3776	Deviation from contracted weight (g/m ² OR oz/yd ²): +/- 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 Note: For low shrink programs refer to Performance Claims Protocol 401-15	FIBER CONTENT	FABRIC TYPE	SHRINK
		100% COTTON	Jersey	6x6
			Interlock, 1x1 rib, 2x2 rib	8x8
			French Terry	8x8
			Thermal (waffle)	8x8
		CVC & Cotton Rich Stretch	Jersey	6x6
			Pique	6x6
			Interlock, 1x1 rib, 2x2 rib	8x8
			Fleece, French Terry	8x8
		100% POLY (All Synthetics)	Thermal (waffle)	8x8
			Jersey, Interlock	5x5
			1x1 rib, 2x2 rib	6x6
			Fleece, French Terry	5x5
		POLY/COTTON (All Synthetics)	Jersey, Interlock	5x5
1x1 rib, 2x2 rib	6x6			
Fleece, French Terry	5x5			
100% RAYON, Rayon/Spandex, Poly/Rayon, Poly/Rayon/Span (All Synthetics)	Jersey	6x6		
	1x1 rib, 2x2 rib	6x6		
Dry Cleaning (3 cycles)	All Fabrics	2x2		
Allow 1% Growth Only				
Appearance Retention	AATCC/ASTM TS-008 Modified Tide ® Powder Detergent	Must meet all applicable Kohl's Appearance Evaluation Requirements (Refer KAR SOP)		
Bursting Strength	ASTM D 3786	Torque	Tier 1	Tier 2
		lb/sq inch	5%	3%
		< /= 4 oz/ sq yd	30	40
		> 4 oz/ sq yd	40	50
		> 12 oz/sq yd	50	60
		Lace, mesh etc	15	15
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		
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		
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	All fabrics. (except listed below):		
		dry	4.0	
		wet	3.0	
		<u>Pigment Dyed/Printed, Lightly Brushed, Sand Washed, Piled, Sulphur, Denim, Indigo & Silk blends:</u>		
		dry	3.5	
		wet	2.0	
Analytical				
Formaldehyde	Kohl's TM-5 (only for 4 years and up) JIS L 1041:2000 – Sec. 5.3.1 (2) Method B, JIS Water Extraction Method	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	Requirement: 5.0 - 8.0 (No Tolerance)		

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)	Negative, If Spot Test is Positive, proceed with step 2		
	JIS L 1041:2000 – Sec. 5.3.1 (2) Method B, JIS Water Extraction Method	Children <u>over</u> 5T & Adults = 75 ppm max.		
pH Value	AATCC 81	Children's 0-5T = 20 ppm max.		
Appearance Retention	AATCC/ASTM TS-008 Modified Tide® Powder Detergent	Requirement: 5.0 - 8.0 (No Tolerance)		
Colorfastness to Chlorine AND Non-Chlorine Bleach	AATCC/ASTM TS-001	Must meet all applicable Kohl's Appearance Evaluation Requirements		
Colorfastness to Crocking	AATCC 8/116 Original State If results fail in original state, perform after 1 Wash/Dry Cycle	<u>All fabrics (except listed below):</u>		
		dry	4.0	
		wet	3.0	
		<u>Pigment Dyed/Printed, Lightly Brushed, Sand Washed, Piled, Sulphur, Denim, Indigo & Silk blends:</u>		
		dry	3.5	
		wet	2.0	
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* (Active/Outerwear/Swimwear)	AATCC 16.3-2012 10 AFU & 20 AFU	<u>All Colors (except listed below):</u> Shade Change: 10 AFU; Grade 4.0 min 20 AFU		
Pilling (Activewear / Outerwear)	ASTM D 3512		Tier 1	Tier 2
		30 Min	3.5	4.0
		60 Min	3.0	3.5
Stretch & Recovery /Tension & Elongation **For fabrics containing Spandex **Loose fitting- Note in test report (if available)	ASTM D4964-96(2012) E1 Modification: Take two 7.0 inch long width specimens from a large area of the fabric, 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 **If fabric submission is too small - take the largest size possible	<u>To be recorded as DATA ONLY:</u> Growth: Report Elongated distance & percentage after 60 seconds & 30 minutes. <u>PASS/FAIL:</u> Recovery: 85% min after 60 seconds Recovery: 85% min. after 30 minutes 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 0-4T, 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
101-1	1. Fabric Count = Added test method AATCC/ASTM TS-002 2. Colorfastness to Abrasion-Frosting Test – Removed from Optional Testing 3. Pilling Resistance Test – Removed from Optional Testing 4. Ageing of Sulphur Dyed Fabrics Test – Changed test method option to Option 7.1 – Oven Aging	April 2007/Ro Jain
101-2	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. Bursting Strength – Changed requirements 4. Colorfastness to Accelerated Laundering/Dry Cleaning – Test has been removed. Have been added to Appearance Retention test. 5. Colorfastness to Crocking - Test specimen to be tested original state and after 1 wash/dry cycle. 6. Colorfastness to Light – Changed evaluation 20 AFU to 10 AFU & 20 AFU. Added requirement 3.0 for colors: Neons/Brights/Pastels and Whites. 7. Pile Retention Test – Changed test method to Intertek Hong Kong Method 026: Requirement = Level of Pile Shedding = 3.5 Weight of Fiber Removed = 1.5% 8. Formaldehyde Content – Test to be used on all products. Changed requirement to: Children over 36 months & Adults = 75 ppm max. Infants under 36 months = 0.05 Absorbency max. 9. Stretch Properties – Changed requirement: Use a 5 lbs. load for any knits with spandex. Refer to page 3 of this protocol for requirements.	Nov. 2008/ Ro Jain
101-3	1. Removed – No tolerance allowed for wool/wool blend products under the Fiber Content Protocol 2. Combined Formaldehyde spot test & full test into one line & 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 (4 lbs) / updated requirements	Nov.2009/Ro Jain
101-4	1. Fiber Content Added the Fur labeling and Identification acts and wool #16 cfr 300 2. Analytical Formaldehyde-added Kohl's TM-5 3. Updated Tide to "Ultra" 4. Bursting Strength (Lace/mesh, etc. revised to 15 lbs.) 5. Pile Retention Updated to Kohl's TM-19 6. Stretch & Recovery Added "MODIFIED" 7. Removed -Aging of sulphur dyed etc. section	Nov. 2011/Ro Jain
101-5 (combined 101,102,105)	Added : pH Pilling test for Active wear/ Intimates / Swimwear Modified : Formaldehyde requirements for Children 0-4T, Test Method CF to water and Perspiration requirements Cf to crocking ratings Dimensional Stability test requirements stretch and recovery requirements (>10% spx) Cf to light test method.	September 2013 / Vinoth Deenadayalan
101-6	1) Revised Pilling Test (removed Pilling test requirement from sleepwear fabrics)	September 2014 / Vinoth Deenadayalan
101-7	1) Removed pricing for testing/removed Intertek/added 3rd party lab statement	October 6th, 2014/Nov. 30th/Leah Gross-Hutchison
101-8	1) Updated PH for Whites	09/2015: Michelle Zydek

101-9	1) Updated requirement for pH (whites only)	4/2016- Jackie Deppisch
101-10	1) Updated Stretch & Recovery Requirements	5/2016- Jackie Deppisch
101-11	1) Updates to Stretch & Recovery	6/2016-Jackie Deppisch
101-12	1) Updated Formaldehyde age range from 0-4T to "0-5T"	4/2017 - Becky Becker
101-13	1) Updated crocking requirements to read: Pigment Dyed/Printed, Lightly Brushed, Sand Washed, Piled, Sulphur, Denim, Indigo & Silk blends:	5/2017 Becky Becker
101-14	1) Updated pH level to 5.0 - 8.0 (No tolerance)	7/2018 Becky Becker
101-15	1) Update Dimensional Stability Requirements	8/2018 Becky Becker
101-16	1) Added Back Dry Cleaning Requirements for Dimensional Stability	10/2018 Becky Becker
101-17	1) Removed Ultra from Tide detergent 2) Updated Stretch & Recovery Requirements	12/2018- Jackie Deppisch/Charlene Swanson
101-18	1) Updated S&R DATA ONLY information to include elongation	1/2019- Jackie Deppisch
101-19	1) Updated Pile Retention to ASTM D4685 Option B Method	4/2019 - Charlene Swanson
101-20	1) Update S&R requirements	4/2019- Jackie Deppisch
101-21	1) Updated Handwash Test Method to AATCC LP2	4/2019 - Becky Becker
101-22	1) Added Tension & Elongation test method	5/19- Jackie Deppisch
101-23	1) Added Pique to CVC & Cotton Rich Stretch for Dimensional Change	7/19 - Charlene Swanson
101-24	1) Updated Stretch & Recovery Requirements 2) Updated Tension & Elongation Requirements	November 2019/Jackie Deppisch
101-25	1) Updated all dry cleaning to 3 cycles in stead of 1 cycle	January 2020/Charlene Swanson
101-26	1) Updated S&R TM	February 2020/ Jackie Deppisch
101-27	1) Updated Stretch & Recovery requirements	March 2020/Charlene Swanson
101-28	1) Updated requirements for S&R to be applicable to fabric	March 2020/Charlene Swanson
101-29	1) Updated S&R to be more clear since applicable to fabric	April 2020/Charlene Swanson
101-30	1) Update Tiering	August 2021/ Jackie Deppisch
101-31	1) Updated formatting	September 2021/Charlene Swanson
101-32	1) Updated formatting so CF to chlorine bleach was visible	October 2021/Charlene Swanson
101-33	1) Added Performance Claims Protocol (401) testline	March 2022/ Becky Becker
101-34	1) Added c/f light test method to "REQUIRED WHERE APPLICABLE AT ADDITIONAL COST" section of protocol	August 2022/ Jackie Deppisch
101-35	1) Added Reference to Protocol 501	October 2022 / Kevin Makocy
101-36	1) Updated Bursting Strength requirements to match 201	May 2023/ Jackie Deppisch