

**311-5**  
**Wire Casings (Knit and Woven)**

PERFORMANCE	TEST METHOD	REQUIREMENT
<b>INITIAL PACKAGE / FULL PACKAGE</b>		
<b>Physical Properties</b>		
Fiber Content	AATCC 20/20A	One Fiber Only: No Tolerance Two or More Fibers: +/- 3% max deviation from contracted fiber content Functional Fibers i.e. Spandex: +/- 2% max deviation from contracted fiber content
Width	Kohl's TM-8	Report Actual Measurements in mm
<b>Dimensional Change</b>		
Dimensional Change to Home Laundering AND Dry Cleaning	AATCC 135/158(3 washes) / Dry Clean (1 cycle) Ultra Tide ® Powder Detergent	-1.5% for regular -2.5% for microfiber (length of casing only)
Appearance Retention after Laundering AND Dry Cleaning	AATCC/ASTM TS-008 Modified Ultra Tide ® Powder Detergent	Color Change: Grade 4 min. Staining: Grade 4 min. Plus any additional comments
<b>Strength &amp; Durability</b>		
Wire Casing Pin Penetration	Kohl's TM 26	50 lb. Minimum
<b>Colorfastness</b>		
Colorfastness to Chlorine Bleach AND Non-Chlorine Bleach	AATCC/ASTM TS-001	Shade Change: Grade 4 min
Colorfastness to Perspiration	AATCC 15	Shade Change: Grade 4 min Staining: Grade 4 min
Colorfastness to Crocking	AATCC 8/116	Dry - Grade 4 min Wet - Grade 3 min
Colorfastness to Water	AATCC 107	Shade Change: Grade 4 min Staining: Grade 4 min
Colorfastness to Atmospheric Fumes (white casings only)	AATCC 23	Grade 4 min
Phenolic Yellowing (white casings only)	ISO 105-X 18:2007	Shade Change: Grade 4.0 min
<b>Analytical</b>		
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 –	Children over 4 T & Adults = 75 ppm max.
	Sec. 5.3.1 (2) Method B, JIS Water Extraction Method	Children's 0-4T = 20 ppm max.
pH	AATCC 81	6.0 - 8.0
<b>ADDITIONAL COLORWAY TESTING</b>		
Appearance Retention after Laundering AND Dry Cleaning	AATCC/ASTM TS-008 Modified Ultra Tide ® Powder Detergent	Color Change: Grade 4 min. Staining: Grade 4 min. Plus any additional comments
Colorfastness to Chlorine Bleach AND Non-Chlorine Bleach	AATCC/ASTM TS-001	Shade Change: Grade 4 min
Colorfastness to Perspiration	AATCC 15	Shade Change: Grade 4 min Staining: Grade 4 min
Colorfastness to Crocking	AATCC 8/116	Dry - Grade 4 min Wet - Grade 3 min
Colorfastness to Water	AATCC 107	Shade Change: Grade 4 min Staining: Grade 4 min
Formaldehyde	Kohl's TM-5 (only for 4 years and up) JIS L 1041:2000 - Method	Negative, If Spot Test is Positive, proceed with step 2 Children over 4 years & Adults = 75 ppm max. Children's 0-4T = 20 ppm max.
pH	AATCC 81	6.0 - 8.0
<b>REQUIRED WHERE APPLICABLE AT ADDITIONAL COST</b>		
Colorfastness to Sea Water*	AATCC 106	Shade Change: Grade 4 min Staining: Grade 4 min

Colorfastness to Chlorinated Pool Water*	AATCC 162	Shade Change: Grade 4 min
Resistance to Saliva* (Children Only - under 36 months)	64 LFGB B82.92-3 Part 1	Staining: Grade 4.5 min Shade Change: Grade 4.0 min
<b>TOXICOLOGY TESTING – REQUIRED WHERE APPLICABLE AT ADDITIONAL COST</b>		
Lead Content in Surface Coating - Scrapeable in each color*	CPSC-CH-E1003-09.1	Children & Adult Products ≤ 90ppm (0.009% by weight) Refer to Kohl's Product Safety Policy for additional requirement on Composite Testing
Total Lead in Substrate Material*	CPSC-CH-E1002-08.1/ CPSC-CH-E1001-08.1	Children's of ALL ages & Adult products ≤ 90ppm (0.009% by weight) Refer to Kohl's Product Safety Policy for additional requirement on Composite Testing
Phthalates in each plasticized part/material such as PVC, Vinyl*	CPSC-CH-C1001.09.3	Children's & Adult Products (Coatings Shall be tested) ≤ 90ppm (0.009% by weight)in each part of DEHP, DBP, BBP, DINP, DIDP, DNOP, & DNHP Refer to Kohl's Product Safety Policy for additional requirement on Composite Testing
Soluble Heavy Metals* Applies to Children's Toys	ASTM F 963-11	Children's Toys = Defined as a consumer product designed or intended by the manufacturer for a child, for use by the child when the child plays. Required for children's toys of ALL ages  Mercury – 60 ppm                      Barium – 1000 ppm Antimony – 60 ppm                      Cadmium – 75 ppm Arsenic – 25 ppm                      Chromium – 60 ppm Selenium – 500 ppm                      Lead – 90 ppm

(\* ) asterisk= ALL COLORWAYS MUST BE TESTED

\*\*\*ALL COMPONENTS MUST BE TESTED FOR TOXICOLOGY\*\*\*

**Minimum Sample Size Necessary for Testing**

Initial Package: 2 yards

Additional Colorway: 1 yard

Toxicology Testing

Consult with approved lab for the number of samples

Applicant is to select appropriate number of fabric layers based on end use application.

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

Turn Around Time = 6 working days

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.

PROTOCOL VERSION	DESCRIPTION OF CHANGE	DATE REVISION / APPROVED BY
311-1	Protocol Created	March 2013 / Devon Engel
311-2	1. Formaldehyde – Updated JIS method to Water Extraction and updated 0-4T req. to 20 ppm.	May 2013 / Vinoth Deenadayalan
311-3	Removed pricing for testing/took out Intertek/added approved lab statement	October 6th 2014/Nov. 31 2014/Leah Gross-Hutchison
311-4	Add Formaldehyde method B	December 4th 2014
311-5	1) Updated Total Lead in Substrate requirement to be 90 ppm instead of 100 ppm, per labs advisement	January 2025/Isaac Grossman