

**308-10
Thread**

PERFORMANCE	TEST METHOD		REQUIREMENT							
INITIAL PACKAGE / FULL PACKAGE										
Physical Properties										
Thread Twist	ASTM D1423		Determine S or Z Twist & Twist per inch Report Actual Readings							
Thread Twist Balance	ASTM D204		Report actual number of complete revolutions (Use general lock & stitch sewing machine)							
Thread Size	ASTM D1907		-0% / +10% of contracted Tex Count							
Fiber Content	AATCC 20/20A 16 CFR 303 Wool Product Labeling Act		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							
Colorfastness										
Colorfastness to Laundering AND Dry Cleaning	ASTM D 204 Laundering Conditions – option 2B Tide ® Powder Detergent		Shade Change: Grade 4 min Staining: Grade 4 min							
Colorfastness to Perspiration	AATCC 15		Shade Change: Grade 4 min Staining: Grade 4 min							
Colorfastness to Crocking	AATCC 8/116		All Colors (except listed below): Dry – Grade 4 min Wet – Grade 3 min Pigment Dyed/Printed, Sulphur, Indigo: Dry – Grade 3 min Wet – Grade 2 min							
Colorfastness to Light	AATCC 16.3-2012 20 AFU		Color Change: Grade 4 min							
Colorfastness to Water	AATCC 107		Shade Change: Grade 4 min Staining: Grade 4 min							
Strength & Durability										
Thread Strength & Elongation	ASTM D 2256 / ASTM D 204 As received and after wetting		See Chart Below							
Content: Polyester Core/Cotton Wrap										
Tex Count	24	40	60	80	105	120				
Breaking Strength (lbs)	2.05	3.30	5.82	6.37	7.63	10.50				
Elongation at Break	17-23	17-23	17-28	17-28	17-28	17-28				
Below for Kohl's Reference										
ELKO FTK Total max	7	7	7	8	8	8				
ELKO FTK Serious max	5	5	5	6	6	6				
lub % range	3 - 5	3 - 5	3 - 5	4 - 6	4 - 6	4 - 6				
Content: Polyester Core/Polyester Wrap										
Tex Count	18	21	24	30	40	60	80	105	120	
Breaking Strength (lbs)	1.72	1.80	2.36	2.99	4.02	6.29	8.07	9.58	13.00	
Elongation at Break	13-22	16-22	14-23	14-23	15-23	15-30	17-30	17-30	17-25	
Below for Kohl's Reference										
ELKO FTK Total max	8	8	8	6	6	6	6	6	6	6
ELKO FTK Serious max	4	4	4	4	4	4	4	4	4	4
lub % range	2.5 - 4.5	2.5 - 4.5	2.5 - 4.5	2.5 - 4.5	2.5 - 4.5	4 - 7	4 - 7	4 - 7	4 - 7	4 - 7
Content: Spun Polyester										
Tex Count	18	21	24	27-30	40	45	60	70	80	105
Breaking Strength (lbs)	1.36	1.50	1.65	2.19	2.48	3.23	4.11	4.68	6.43	8.03
Elongation at Break	11 - 18	11 - 18	11 - 18	12 - 19	12 - 20	12 - 20	13-22	14-22	14-22	14-23
Below for Kohl's Reference										
ELKO FTK Total max	6	6	6	6	6	6	6	6	6	6
ELKO FTK Serious max	4	4	4	4	4	4	4	4	4	4
lub % range	3 - 7	3 - 7	3 - 7	3 - 7	3 - 7	3 - 7	3 - 7	3 - 7	3 - 7	3 - 7

Content: Textured Polyester					
Tex Count	18	35	40	60	100
Breaking Strength (lbs)	1.32	2.77	2.62	3.94	6.49
Elongation at Break	22 - 30	22 - 30	22 - 30	22 - 30	22 - 30
Below for Kohl's Reference					
ELKO FTK Total max	1	1	1	1	1
ELKO FTK Serious max	1	1	1	1	1
lub % range	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4
Content: Tri-lobal Polyester Embroidery					
Tex Count	10	18	27	40	
Breaking Strength (lbs)	0.75	1.17	2.29	2.60	
Elongation at Break	25 - 32	25 - 32	20 - 27	25 - 32	
Below for Kohl's Reference					
ELKO FTK Total max	1	1	1	1	
ELKO FTK Serious max	1	1	1	1	
lub % range	1.5 - 3.5	1.5 - 3.5	1.5 - 3.5	1.5 - 3.5	
Content: Polyester Air Entangled					
Tex Count	60	90	135		
Breaking Strength (lbs)	6.16	8.29	13.01		
Elongation at Break	9 - 21	12 - 19	13 - 20		
Content: Metallic Embroidery					
Tex Count	27	105			
Breaking Strength (lbs)	1.10	2.20			
Elongation at Break	20 - 40	25 - 45			
Content: Polyester Embroidery					
Tex Count	21				
Breaking Strength (lbs)	1.48				
Elongation at Break	8 - 22				
ADDITIONAL COLORWAY TESTING					
Colorfastness to Laundering AND Dry Cleaning*	ASTM D 204 Laundering Conditions – option 2B Tide ® Powder Detergent		Shade Change: Grade 4 min Staining: Grade 4 min		
Colorfastness to Perspiration*	AATCC 15		Shade Change: Grade 4 min Staining: Grade 4 min		
Colorfastness to Crocking*	AATCC 8/116		All Colors (except listed below): Dry – Grade 4 min Wet – Grade 3 min Pigment Dyed/Printed, Sulphur, Indigo: Dry – Grade 3 min Wet – Grade 2 min		
Colorfastness to Light*	AATCC 16.3-2012 20 AFU		Color Change: Grade 4 min		
Colorfastness to Water*	AATCC 107		Shade Change: Grade 4 min Staining: Grade 4 min		
Analytical Test- REQUIRED WHERE APPLICABLE AT ADDITIONAL COST					
Formaldehyde	Kohl's TM-5 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 over 5T & Adults = 75 ppm max. Children's 0-5T = 20 ppm max.		

TOXICOLOGY TESTING – REQUIRED WHERE APPLICABLE AT ADDITIONAL COST										
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% total weight) Refer to Kohl's Product Safety Policy for additional requirement on Composite Testing								
Phthalates content*	Consumer Product Safety Improvement Act of 2008 / 16 CFR 1307 / CPSC-CH-C1001-09.4 (Mod)	Children's toys and childcare articles, before and after use and abuse testing, shall not contain concentrations of more than 0.1% BBP, DBP, DEHP, DINP, DIBP, DPENP, DHEXP, DIDP, DNOP, or DCHP individually. Component testing is allowed. Compositing up to 3 like materials is allowed. Product manufactured and imported as of April 25, 2018 must comply.								
Soluble Heavy Metals* Applies to Children's Toys	ASTM F 963-17	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								
Lead, Cadmium and Phthalate* Applicable to children product including: - Child car seats - Clothing - Cosmetics for children under the age of 12 - Jewelry for children under the age of 12 - Products to help a child with sucking or teething, to facilitate sleep, relaxation, or the feeding of a child	<u>Lead and Cadmium</u> EPA SW 846 Method # 3050B/3051 (Mod.) / CPSCCH-E1003-09.1/ CPSC-CHE1002-08.1 / CPSC-CHE1001-08.1 <u>Phthalate</u> CPSC-CHC1001-09.3	Washington Children's Safe Products Act ≤ 90 ppm (lead) ≤ 40 ppm (Cadmium) ≤ 0.1% (DEHP, BBP, DBP, DINP, DIDP, DnHP, DnOP, DIBP, DnPP or DCHP) (individually or in combination) <table border="1" style="width: 100%;"><thead><tr><th>Substances</th><th>Suggested materials</th></tr></thead><tbody><tr><td>Lead</td><td>Follow CPSC lead</td></tr><tr><td>Cadmium</td><td>Follow CPSC lead</td></tr><tr><td>Phthalates</td><td>Coating & Plasticized materials</td></tr></tbody></table> The Washington standard cannot be enforced for products to which a federal standard applies.	Substances	Suggested materials	Lead	Follow CPSC lead	Cadmium	Follow CPSC lead	Phthalates	Coating & Plasticized materials
Substances	Suggested materials									
Lead	Follow CPSC lead									
Cadmium	Follow CPSC lead									
Phthalates	Coating & Plasticized materials									
(*) asterisk= ALL COLORWAYS MUST BE TESTED										
ALL COMPONENTS MUST BE TESTED FOR TOXICOLOGY										
Basic Submission – An individual thread style. The basic submission contains the entire range of sizes for that style. Submit in a dark color.										
Minimum Sample Size Necessary for Testing										
Initial Package: 1 cone (500 yards) of darkest colorway										
Additional Colorway: 1 cone (300 yards) per colorway										
**Please refer to Kohl's preferred third party labs for individual and optional testing pricing										

PROTOCOL VERSION	DESCRIPTION OF CHANGE	DATE REVISION / APPROVED BY
308-1	<ol style="list-style-type: none"> 1. Thread Shrinkage Test – REMOVED 2. Breaking Strength (Spun Polyester Tex 30) – Changed requirement from 1.19 to 2.19. 3. Colorfastness to Laundering – Specified laundering condition to Option 2B – Non-Chlorine Bleach. 	Nov. 2008/Ro Jain
308-2	<ol style="list-style-type: none"> 1. Lead Content in Surface coating – Updated test method to CPSC-CH-E1003-09 2. Lead in Substrate – Updated test method to CPSC-CH-E1002/CPSC-CH-E1001-08 and requirement <100 ppm from spring 2011 	Nov. 2009/Ro Jain
308-3	<ol style="list-style-type: none"> 1. C/f to Laundering & Dry Cleaning – Added “Ultra” to Tide Detergent. 2. Lead in Surface Coating – Updated method to CPSC-CH-E1003-09.1. Added Adult requirement, <600 ppm. 3. Total Lead Substrate – Updated method to CPSC-CH-E1002-08.1/CPSC-CH-E1001-008.1. 4. Added Phthalates & Heavy Metals to protocol. 5. Thread Size – Changes requirement from +/-5% to -0%/+10%. 	Nov. 2011/Amy Her
308-4	<ol style="list-style-type: none"> 1. Lead in Substrate test – Starting Spring 2013, test is required on Adult products. 2. Toxicology tests required on both Children & Adult products. 3. Added Fiber Content test. 4. Updated price test. 	Sept. 2012/Vinoth Deenadayalan
308-5	<ol style="list-style-type: none"> 1) Removed “starting spring 2013” statement 2) Added “coatings shall be tested” statement to the Phthalates test 3) Heavy Metals – updated test method to ASTM F963-11 4) C/f to Light – Updated method to AATCC 16.3-2012 	May 2013/Vinoth Deenadayalan
308-7	<ol style="list-style-type: none"> 1) Removed pricing for testing/took out Intertek/added approved lab statement 	October 6th 2014/Nov. 31 2014/Leah Gross-Hutchison
308-8	<ol style="list-style-type: none"> 1) Added Formaldehyde 	December 4th 2014- Michelle Zydek
308-9	<ol style="list-style-type: none"> 1) Updated phthalates requirements 2) Updated Soluable Heavy Metals version number 	October 2018/Jackie Deppisch
308-10	<ol style="list-style-type: none"> 1) Added ASTM D 204 to be in conjunction with ASTM D 2256 2) Added Washington State requirements 3) Updated formaldehyde to be up to 5T for children 4) Updated formaldehyde test to be most current 5) Removed "Ultra" from Tide detergent 6) Updated Total Lead in Substrate requirement to be 90 ppm instead of 100 ppm, per labs advisement/MN Law 7) Updated Phthalates to include DNOP and DIDP per labs advisement/ MN Law 	December 2020/Charlene Swanson January 2025/Jakie Deppisch