

PROTOCOL # 605-27

Memory Foam Pillows/ Toppers

| Performance Test | Test Method | Requirement |
|--|---|--|
| Initial Package | | |
| BASED ON FINISHED PRODUCT TESTING UNLESS OTHERWISE NOTED | | |
| Label Verification | | |
| Law Label <i>(Filled Products Only)</i> | International Association of Bedding & Furniture Labeling Officials & CA Bureau of Home Furnishing and Thermal Insulation Act | Label must be included and all state laws must be met: CA BFHTI Article 13 Sec. 1374 *Refer to Kohl's Labeling Guideline Policy for Law Label Guidelines If labeling or packaging is not attached to product, artwork must be provided |
| Tracking Label: Adult product: <i>**If space limitations exist, contact Kohl's Quality Assurance & Product Integrity teams to discuss minimum required information (quality.assurance@kohls.com).**</i> | Kohl's Requirement | <u>PLEASE MARK AS PASS/FAIL</u> <u>To be included on packaging when necessary:</u> Kohl's Assigned Factory Number Manufacture Date (Month/Year) UPC # |
| Performance Claims for Home Textile Products (1000) | Refer to Protocol 1000 | All samples shall be reviewed against the requirements of the Performance Claims for Home Textile Products Protocol to determine if additional testing or labeling is required |
| Tech Pack Verification* (Needs to be provided - Lab HOLD if not provided) | Visual Check | Verify all claims mentioned in Tech Pack file |
| Chemical Analysis | | |
| *Penta-BDE and Octa-BDE (banned) / Deca-BDE (proposed) | Various State Laws of Maine, Illinois, Washington, etc. | Shall not exceed 0.1% by weight. 3-4 week Turn Around Time |
| FTIR (composition screening) | TB 117-2013/SB1019 | Provide Actual |

| Physical Properties | | |
|---------------------|----------------------|---|
| Foam Density | ASTM D3574-16 Test A | <p>Shall meet label claims (if applicable) Report density to the nearest lbs/ft³ Note: Specimen actually taken from test submission</p> <p>+5%/-3% maximum</p> <p>Skin and convoluted peaks to be removed so that sample for density determination is flat on all sides.</p> |
| Product Weight | ASTM D 3776 | Shall report as data |
| Dimensions | Kohl's TM-8 | <p>Report Actual; Shall meet label claims</p> <p>Pillows: +/-0.5" (inches) max deviation from contracted measurements for length and width dimensions</p> <p>Toppers: Range of -0.5" + 1" (inches) max deviation from contracted measurements for length and width dimensions</p> <p>-0%/+4% max deviation from contracted measurements for height dimensions</p> |

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| Material Type | Kohl's TM-10 | Report Actual; Shall meet label claims (if applicable) |
| Defects <i>(if applicable - see product spec for more detail)</i> | Kohl's TM-10 | Shall have no discernible surface degradation: <ul style="list-style-type: none"> • Waves • Bubbles • Shear marks • Scratches • Stains • Scuff marks • Indentations • Blisters • Deformations |
| Flammability | | |
| Flammability | Bureau of Home Furnishings and Thermal Insulation Article 13, 3172.2 TB 117-2013 | All flexible polyurethane foam in the form of slabs, blocks, or sheets or which is shredded (loose or packed) that is offered for sale to the general public at retail outlets for noncommercial or non-manufacturing purposes shall meet the test requirements set for in Section 3 |
| Flammability (where applicable) | 16 CFR 1632.4-5 (FF 4-72, Amended) | 2 inch char length maximum |
| Flammability Labeling N/A if intended for Outdoor use ONLY | TB 117-2013 | <p>Implemented on and after January 1, 2020:</p> <p>Upholstered furniture shall indicate whether or not the product contains added flame retardant chemicals by including the following "flame retardant chemical statement" and indicate with an "X" in one of the appropriate blanks.</p> <p style="text-align: center;">NOTICE</p> <p>THIS ARTICLE MEETS THE FLAMMABILITY REQUIREMENTS OF CALIFORNIA BUREAU OF HOUSEHOLD GOODS AND SERVICES TECHNICAL BULLETIN 117-2013. CARE SHOULD BE EXERCISED NEAR OPEN FLAME OR WITH BURNING CIGARETTES.</p> <p>"The upholstery materials in this product: _____contain added flame retardant chemicals _____contain NO added flame retardant chemicals</p> <p>The State of California has updated the flammability standard and determined that the fire safety requirements for this product can be met without adding flame retardant chemicals. The state has identified many flame retardant chemicals as being known to, or strongly suspected of, adversely impacting human health or development."</p> <p>Label requirement shall comply to Section 1374.3 of Title 4 of the California Code of Regulations for font size of 1/8 in min. and label size of 2 in x 3 in min.</p> <p>Note: The statement shall follow TB 117 flammability compliance statement (on bottom or right hand side of the flammability compliance statement)</p> <p>It is vendor responsibility to retain documentation to show whether flame retardant chemicals were added</p> <p>Effective date: January 1, 2015</p> |

| Performance | | |
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| Functionality | Kohl's TM-12 | Shall function as intended as received. All vacuum packed items must be received in their packaging. |
| Indentation Force Deflection | ASTM D3574-16 Test B1 | Report the force in newtons for 25 and 65% indentation Convoluted peaks are to be tested with convolution side down - pads are to be untrimmed. -/+ 5% from contracted spec. |
| Constant Deflection Compression Test | ASTM D3574-16 Test D | 90% deflection at conditions of 70 +/- 2°C and 6% maximum relative humidity for 22 hours. 90%: Average compression set shall not exceed 10% of original thickness Report the constant deflection compression set as follows: Record original and final in inches. Record compression and recovery in %. |
| Tear Strength <i>(foam must be shaved from finished product)</i> | ASTM D 3574F | Use specimen sizes 1"x 1" x 6" - Report average result of 3 specimens. Foam shaved to specified dimension. For pillows: 0.60 lbs./in. For mattress pads/toppers: 0.75 lbs. min./in. |
| Recovery Time <i>(not finished product testing)</i> | ASTM D3574-17 Test M Compression Tester - Schp/Advanced Automation | Performed on 15" x 15" x 4" foam samples from the top, middle, and bottom of a sample chop. Sample is compressed to 1" and held for 1 minute. The indenter foot quick retracts to 95% of the original specimen thickness and waits for the foam to exert a 1 lb. force. The elapsed time between when the indenter foot starts retracting and the 1 lb. force is the recovery time. If the indenter foot does not disengaged from the foam, the recovery time is too fast to measure. |
| PBDEs - State of Washington <i>(if applicable)</i> | US State Law, Revised Code of Washington (RCW), Chapter 70.76.020 & 70.76.030 | PBDEs except Deca-BDE - Non-comestible (i.e. non-edible) products (exempt medical devices): Not detected Deca-BDE - Mattresses, residential upholstered furniture, plastic enclosure of electronic products: Not detected NOTE: 1) PBDEs include, but are not limited to, Penta-BDE, Octa-BDE and Deca-BDE. 2) Mattresses include mattress sets, box springs, futons, crib mattresses, youth mattresses, and mattress pads. 3) Residential upholstered furniture means seating intended for indoor use in home. |

OPTIONAL TESTING - Required when sold with cover at additional cost

| Label Verification | | |
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| Label Verification | Care Labeling 16 CFR 423 16 CFR 300/ 19 CFR 134 Textile Fiber Products Identification Act 16 CFR 303 Wool Products Labeling Act | Verify information on TRF matches the label Fiber content, Care, Country of Origin, Manufacturers Registration Number, Wool Products Registration Number must meet Federal Standards If labeling or packaging is not attached to product, artwork must be provided |
| Tracking Label (Children of ALL ages) | Consumer Product Safety Improvement Act of 2008 (CPSIA) SEC. 103 | Refer to Kohl's Tracking Label Section in the Labeling Guideline Policy. Following information must be provided: Retailer's Name (Kohl's) Style Number/Name Factory Number Date (Month/Year) |
| Tracking Label: Adult product: <i>**If space limitations exist, contact Kohl's Quality Assurance & Product Integrity teams to discuss minimum required information (quality.assurance@kohls.com).**</i> | Kohl's Requirement | <u>PLEASE MARK AS PASS/FAIL</u> <u>To be included on packaging when necessary:</u> Kohl's Assigned Factory Number Manufacture Date (Month/Year) UPC # |
| Count | ASTM D 3775 / ASTM D3887 / AATCC/ASTM TS-002 | Sheets: +5% max. Others: +/-5% max. |
| <i>Fabric Weight for covers only</i> | ASTM D 3776 | +/-5% max. deviation from contracted weight (oz/sqyd.) |
| <i>Flammability for covers only</i> | ASTM D 1230 | Class 1 |
| Analytical | | |
| 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. |
| CA Prop 65* <i>(if applicable)</i> | Refer to protocol 1300 | All samples shall be reviewed against the requirements of California Prop 65 |
| 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. |
| Attachment Strength 0-5T* Applies to ALL trims No fragile trims allowed (if applicable) | 16 CFR 1500.51-53 Pt. F (Saf Q) | 0-5T: No detachment at 17lbs for 10 seconds (no exceptions) **Must test in original state, after 1 wash, and after 5 washes |
| Dimensional Change | | |

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| <p>Dimensional Change to Home Laundering or Dry-cleaning (entire sample to be washed)</p> | <p>AATCC 150 (after 3 washes) / AATCC 158 (1 cycle) (Length" x Width") Tide® Powder Detergent</p> | <p>Wovens +/-4% max. Flannel +/-5% max. Knits +/-8% max. Dry Cleaning -2%, +1% max. Must fit the pillow or mattress properly after washing</p> |
| <p>Appearance Retention</p> | <p>AATCC/ASTM TS-008 Modified Tide® Powder Detergent</p> | <p>Must meet all applicable Kohl's Appearance Evaluation Requirements</p> |

| OPTIONAL TESTING - Required when sold with cover at additional cost | | |
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| Fit Test | AATCC/ASTM TS-008 Modified Tide® Powder Detergent | Toppers: Product to be fitted on a queen size mattress in original state and after 3 launderings. Observe overall fit. Pillows: Memory Foam pillow to be placed inside case in original state and after 3 launderings. Observe overall fit. |
| Tensile Strength | ASTM D 5034 (CRT/CRE Tensile Testing Machine) | ≤ 2.0 oz/sq. Yd. – 15 lbs. Min > 2 to ≤4.0 oz/sq. Yd.- 25 lbs. Min > 4.0 to ≤ 8.0 oz/sq. Yd.- 35 lbs. Min > 8.0oz/sq.yd. – 45 lbs. Min |
| Tear Strength | ASTM D 1424 (Elmendorf) | ≤ 2.0 oz/sq. Yd. – 1.5 lbs. Min > 2 to < 4.0 oz/sq. Yd.- 2 lbs. Min > 4.0 to < 8.0 oz/sq. Yd.- 2.5 lbs. Min > 8.0oz/sq.yd. – 3 lbs min |
| Seam Slippage/ Seam Strength (wovens only) | ASTM D 1683 | ¼ " at 10 lbs. min. seam slippage / 20 lbs. min seam strength |
| OPTIONAL TESTING - Required when sold with cover at additional cost | | |
| Colorfastness to Crocking (Colors only – not white) | AATCC 8/116 | <u>All fabrics/dyes (except listed below):</u> Dry – Grade 4 min Wet – Grade 3 min <u>Pigment Dyed/Printed, Direct Dye, Vat Dye, Sulfur, Lightly Brushed, Piled, Indigo:</u> Dry – Grade 3 min |
| Colorfastness to Chlorine Bleach AND Non-Chlorine Bleach | AATCC/ ASTM TS-001 | Shade Change Grade 4 min. |
| Attachment Strength* A) Applies to all Rings/Sliders B) Applies to Buttons, Snaps, Small Parts, Belt Loops, Zipper Tab, etc. CD) Over 5T-Adult: Fragile Trims: Beads, Rhinestones, etc. | 16 CFR 1500.51-53 Pt. F (Saf Q) | A) REQUIREMENT: No detachment at 25 lbs. DATA ONLY: Report the point at which the trim fails, or if there is no detachment at 50 lbs. B) REQUIREMENT: Over 5T - Adult: No detachment at 17 lbs. for 10 seconds Exceptions: Buttons: 20lbs DATA ONLY: Report the point at which the trim fails, or if there is no detachment at 50 lbs. C) REQUIREMENT: 5 lbs. for 10 seconds minimum |
| Sharp Points & Sharp Edges* | CPSC 16 CFR 1500.48 - 49 | No sharp points or sharp edges – Refer to Product Safety Policy |

| OPTIONAL TESTING - 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 ≤ 90 ppm (0.009% total weight) | | | | | | | | |
| Total Lead in Substrate Material* | CPSC-CH-E1002-08.3/ CPSC-CH-E1001-08.3 | Children of ALL ages - Accessible components in each part/ material ≤ 100 ppm (0.010% total weight) | | | | | | | | |
| Phthalates in each plasticized part/ material such as PVC, Vinyl * | CPSC-CH-C1001.09.3 | Applies to ALL Children's Products ≤ 1000 ppm max (0.1% max total) BBP, DBP, DEHP, DINP, DIDP, DNOP ≤ 1000 ppm max (0.1% max each individual) DCHP, DIBP, DnHP/DHEXP, DPP/DPENP ALL Adult products ≤ 1000 ppm max (0.1% max total) BBP, DBP, DEHP, DINP, DIDP, DNOP ≤ 1000 ppm max (0.1% max each individual) DCHP, DIBP, DnHP/DHEXP, DPP/DPENP | | | | | | | | |
| OPTIONAL TESTING - TOXICOLOGY TESTING (required where applicable at additional cost) | | | | | | | | | | |
| Soluble Heavy Metals * Applies to Children's Toys | ASTM F963 | 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-CH-C1001-09.3 | Washington Children's Safe Products Act ≤ 90 ppm (lead) ≤ 40 ppm (Cadmium) ≤ 0.1% (max total) BBP, DBP, DEHP, DINP, DIDP, DNOP ≤ 0.1% (max each individual) DCHP, DIBP, DnHP/DHEXP, DPP/DPENP <table border="1"> <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 | | | | | | | | | | |

Minimum Sample Size Necessary for Testing

Recommended Size Topper – Queen Size
Recommended Size Pillow - Standard Size

Initial Package (Memory Foam)

Topper - 3 finished products
Pillows - 5 finished products

Initial Package (Covers)

Topper - 3 finished products
Pillows - 6 finished products

| PROTOCOL VERSION | DESCRIPTION OF CHANGE | DATE REVISION/ APPROVED BY |
|------------------|--|---------------------------------|
| 605-1 | 1) Added FTIR test. 2) Dimensions – updated method to Kohl's TM-8 3) Material Type – updated method to Kohl's TM-10 4) Defects – updated method to Kohl's TM-10 5) Functionality – updated method to Kohl's TM-12 6) Compression Set – Changed compressed requirement from 90% to 75%. Full product is to be tested and not small scale. After 30 minutes, the compression set shall not exceed -10% instead of -5% from its original thickness. 7) Rollator – added “(modified based on warranty length) 1 year =12,500 cycles 8) Cornell Test - added “(modified based on warranty length) 1 year =12,500 cycles 9) Label Review – Added 16 CFR 300, 19 CFR 134. Lab is required to verify information on TRF and match to label submission. 10) Added Tracking Label Review on Children’s Products. 11) Formaldehyde Spot Test – Method changed from Intertek USA #416 to Kohl’s TM-5. 12) Tensile Strength – Added CRT Tensile testing machine. 13) Lead Surface Coating – Corrected method from 16 CFR 1303 to CPSC-CH-E1003-09. Also, added requirement for Adult products. 14) Lead Substrate – Corrected method from EPA 3050B or EPA 3051 to CPSC-CH-E1002-08/CPSC-CH-E1001-08. 15) Phthalates – Corrected method from ASTM D3421 to CPSC-CHC1001.09.2. 16) Heavy Metals – Corrected method from ASTM F 963-07 to ASTM F 963-08. | August 2011/Amy Her |
| 605-2 | 1) Added Lead, Cadmium, and Phthalate testing for children | May 2017/Charlene Swanson |
| 605-3 | 1) Removed Overall Density, Compression Test, and Indentation Force Deflection and replaced with updated performance testing: Foam Density, Constant Deflection Compression Test, and Indentation Force Deflection | June 2017/Charlene Swanson |
| 605-4 | 1) Added Flammability test for mattress toppers 2) Added Law Label | September 2017/Charlene Swanson |
| 605-5 | 1) Updated Formaldehyde for children up to 5T | October 2017/Charlene |
| 605-6 | 1) Added CA Prop 65 | November 2017/Charlene |
| 605-7 | 1) Updated Formaldehyde format 2) Updated Phthalates requirements 3) Updated Lead Content format | December 2017/Charlene Swanson |
| 605-8 | 1) Updated formaldehyde to be up to date | January 2017/Charlene |
| 605-9 | 1) Added DIDP back to phthalates for testing | February 2017/Charlene |
| 605-10 | 1) Updated phthalates testing for Washington law to include coated materials 2) Updated Soluble Heavy Metals to be ASTM F 963-17 3) Contact information updated to be most current for subcontracting | October 2018/Charlene Swanson |
| 605-11 | 1) Removed Cornell and Pressure Mapping tests | December 2018/Charlene |
| 605-12 | 1) Added in requirements for Adult Tracking Labels | March 2019/Jackie Deppisch |

| PROTOCOL VERSION | DESCRIPTION OF CHANGE | DATE REVISION/ |
|------------------|--|----------------------------------|
| 605-13 | 1) Marked Adult Tracking Labels as DATA | March 2019/Jackie Deppisch |
| 605-14 | 1) Updated Flammability requirements to Section 3 for TB 117 2) Added PBDE's per Washington State Requirements 3) Updated Foam Density testing to include minimum and maximum tolerances and direction for convoluted toppers 4) Updated Dimension testing to include tolerances for length, width, and height per contracted measurements 5) Added Product Weight testing 6) Updated Indentation Force Deflection testing to have direction on convoluted toppers and tolerances per contracted spec. 7) Removed Rollator (Roller Sheer) testing 8) Updated Constant Deflection Compression Test to include tolerance for compression thickness and how to record data. 9) Added Tear Strength test for pillows and toppers 10) Added Recovery Time testing 11) Updated Fabric Weight to be correct test method 12) Updated phthalates testing to have max total and max individual requirements | May 2019/Charlene Swanson |
| 605-15 | 1) Updated defects to be more applicable to memory foam 2) Updated Flammability to be most current method | July 2019/Charlene Swanson |
| 605-16 | 1) Updated attachment strength requirements | August 2019/Charlene Swanson |
| 605-17 | 1) Updated Attachment strength for both performance and regulatory | August 2019/Charlene Swanson |
| 605-18 | 1) Updated law label requirements | September 2019/Charlene Swanson |
| 605-19 | 1) Added Tech Pack Verification 2) Updated TB-117 Requirements | November 2019/Charlene Swanson |
| 605-20 | 1) Updated Adult Tracking Label to REQUIREMENT | March 2020/ J. Deppisch |
| 605-21 | 1) Updated email address for tracking label requirement | June 2021/Charlene Swanson |
| 605-22 | 1) Updated Dimensions and Foam Density requirements | August 2021/Charlene Swanson |
| 605-23 | 1) Updated product weight requirements | October 2021/Charlene Swanson |
| 605-24 | 1) Added test line for all performance claims | March 2022 / Becky Becker |
| 605-25 | 1) Added testline Softlines Regulatory Supplemental Protocol | Violet Nelson Oct. 28, 2022 |
| 605-26 | 1) Removed year from ASTM F963 2) Updated email address for adult tracking label | February 2024 / Charlene Swanson |
| 605-27 | 1) Added back Tech Pack verification test line | April 2024 / Charlene Swanson |