PROTOCOL # 406- ZJ				
Chair (Indoor & Outdoor)				
Performance Test	**Test Method**	**Samples**	**Requirement**	**Rating (Section or exec. Summary which failed items can be referenced)**
Initial Package				
Label Verification				
Label Review	Care Labeling 16 CFR 423 16 CFR 300/ 19 CFR 134 Textile Fiber Products Identification Act 16 CFR 303 Wool Products Labeling Act	All Samples	Should be legibly marked with the following information: -Distributor's name, trademark or other means of identification of the manufacturer or packer & address (City, State & Zip) -Product identification -Net quantity of the contents in terms of weight, measure or numerical count (Metric & US Standard) or a combination so as to give accurate information and facilitate value comparison by the consumer -Country of origin (if imported)	
Uniform Law Labels for Bedding & Upholstered Furniture	IABFLO	All Samples	All filling materials must have a securely affixed label which contains the following information: The statement "UNDER PENALTY OF LAW THIS TAG NOT TO BE REMOVED EXCEPT BY THE CONSUMER"; A description of the filling contents preceded by the statement "ALL NEW MATERIALS consisting of "; The assigned state registration number*, for example in Pennsylvania, the number is preceded by the abbreviation REG. NO. PA (the # symbol is not accepted); and The statement: Certification is made by the manufacturer that the materials in this article are described in accordance with the law. For animal or fowl or any other material requiring sterilization, the tag must also bear the following information: A permit number of the sterilizer, only if sterilized new material is used; and The statement "CONTENTS STERILIZED" (this is not acceptable in California). The statement of MADE BY (for manufacturer) or MADE FOR (for importer or distributor) with full street address The statement of "Finished Size", "Net Weight of Filling Material"," Cover:" (client's requirement) The statement of country of origin. e.g. MADE IN CHINA The tag must be constructed of white linen cloth or spun bonded olefin having a minimum size of 2in x 3in, (the length starts at the beginning of the word "UNDER" and ends at the country of origin on the bottom of the law label), and must be printed in black ink with a minimum type height of 1/8 inch (3.2 millimeters). Some states may require additional information such as DATE OF DELIVERY.	
CA Technical Bulletin 117 Labeling (if applicable)	Visual Check	All Samples	(a) Upholstered articles conforming to Section 1374 (a) shall have a label attached to the surface area of the article, in plain view, stating the following: Implement on and after January 1, 2020 NOTICE 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. The following "flame retardant chemical statement" should be added on the bottom of CA Technical Bulletin 117 label. "The upholstery materials in this product: ___ contain added flame retardant chemicals ____ contain NO added flame retardant chemicals 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." A manufacturer of covered products shall indicate the absence or presence of added flame retardant chemicals by placing an "X" in one of the appropriate blanks. Minimum size of the label shall be 2x3 inches and the minimum size of the type shall be one-eighth inch in height. All type shall be in capital letters. But the "flame retardants chemical statement" need not be in all capital letters.	

Instructional Literature (Assembly Instruction) (Needs to be provided – Lab HOLD if not provided)	Visual Check	All Samples	Shall provide safe use, or proper assembly or both, and care instruction. Shall be legible and easy to read.	☐ Provided ☐ Verified ☐ Not Provided
EPA TSCA Title VI – Composite Wood Finished Good Labeling	40 CFR 770.45(c)	All Samples	Finished goods **containing regulated composite wood** shall comply with the labeling requirements found in 40 CFR 770.45 (c). At a minimum, the label must be on the product OR the packaging The label may be applied as a stamp, tag, or sticker The label shall include, at a minimum, in legible English text: 1. Fabricator's name 2. Date the finished good was produced (in month/year format) 3. A statement of compliance to denote that the finished good complies with TSCA Title VI Example: XXX Company MM/YYYY EPA TSCA Title VI compliant for formaldehyde **Notes:** **Client does not allow the use of the de minimis exception found in 40 CFR 770.45(e). All finished goods containing regulated composite wood shall include labeling pursuant to the above requirements of 40 CFR 770.45(c).** **A statement of compliance that denotes the finished good complies with CARB's ATCM for formaldehyde will be accepted in lieu of a TSCA Title VI compliance statement until March 22, 2019.** Rating Schedule: On or after June 1, 2018: Compliant submission shall be rated as pass Non-compliant submission shall be rated as fail	
CARB ATCM for Formaldehyde – Composite Wood Finished Good Labeling	Title 17, California Code of Regulations Section 93120.7(d)	All Samples	Finished goods containing regulated composite wood shall comply with the labeling requirements for fabricators found in §93120.7(d). A finished good containing regulated composite wood requires the following: At a minimum, the label must be on the product OR the packaging The label shall be applied as a stamp, tag, sticker, or bar code The label shall include, at a minimum: 1. Fabricator's name 2. Date the finished good was produced (in month/year format) 3. A statement of compliance to denote that the finished good complies with the ATCM Example: XXX Company MM/YYYY California 93120 phase 2 compliant for formaldehyde **Notes:** **If a finished good is labeled with the EPA compliance statement, a separate statement of compliance to the CARB ATCM is not required.** **It is not required for the label to state the level of emissions (Phase 2, NAF, ULEF).** **Labels for finished goods should not include the number of the TPC associated with the composite wood products contained in the finished good.**	
Care label & Fiber Content (Upholstery Only) (If Applicable)	FTC	All Samples	The labeling must include and comply with the claim's	
Verify Label Claims	Visual Check	All Samples	The labeling must comply and valid with all claims.	
*FSC Logo Verification (if Claimed)	Visual Check	All Samples	Verify FSC claim from FSC Certificate Database, the certificate shall be valid  Take photo and include within the report if present	

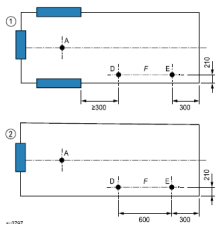
Import Permit (For Natural Materials Only) If Applicable	US Department of Agriculture Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ	All Samples	Product shall not have prohibited materials present per US Department of Agriculture, Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ) Documentation and/ or proper permit(s) for specific product shall be supplied along with Testing Request form and samples. Permit information may be found at: https://www.aphis.usda.gov/wps/portal/aphis/home/ It is the vendor's responsibility for the compliance to relevant requirements.	
Adult Tracking Label: **If space limitations exist, contact Kohl's Quality Assurance & Product Integrity teams to discuss minimum required information MR.QA.PI@kohls.com	Kohl's Requirement	All Samples	**Should be rated as pass/fail** Can be included on packaging when necessary: Kohl's Assigned Factory Number Manufacture Date (Month/Year) UPC #	
EPA TSCA Title VI – Composite Wood - Sample Declaration Form and Mill Certificate (if applicable)	40 CFR 770	All Samples	If wood of any type is present in the sample, submitter shall provide a completed and signed Sample Declaration Form. Sections A, B, and E of the Sample Declaration Form must always be completed. • If regulated composite wood is not present in the sample, result is N/A. • If regulated composite wood is present in the sample: - Submitter shall provide a copy of the certificate issued by the Third Party Certifier (TPC) for the mill(s) from which the raw panels were purchased - All information on the certificate shall be consistent with the Sample Declaration Form - Section D of the Sample Declaration Form must also be completed Notes: •Include a copy of the Sample Declaration Form in the report • Regulated composite wood includes: - Hardwood plywood (HWPW) - Medium-density fiberboard (MDF) - Thin medium-density fiberboard (Thin MDF) - Particleboard (PB) • Mill certificate must indicate compliance with TSCA Title VI. It is no longer acceptable to have the certificate indicate compliance with CARB's ATCM for formaldehyde in lieu of compliance with TSCA Title VI.	
EPA TSCA Title VI – Composite Wood - Raw Panel Labeling (if applicable)	40 CFR 770.45(a)	All Samples	• Panels or bundles of panels must be labeled with the following: - The panel producer's name - The lot number - The number of the EPA TSCA Title VI Third Party Certifier (TPC) - A statement of compliance to denote that the panels comply with TSCA Title VI Notes: • A panel producer number may be used instead of a name to protect identity • Raw panels are regulated composite wood products that have not been used to create a finished good • The compliance statement must denote compliance with the TSCA Title VI. It is no longer acceptable to have the panel labeled as compliant with CARB's ATCM for formaldehyde in lieu of TSCA Title VI compliance statement.	
Formaldehyde Emission of Composite Wood Product - State of California (if applicable)	Airborne Toxic Control Measure (ATCM), California Code of Regulations, Title 17, § 93120	All Samples	Composite wood products include finished goods composed of or containing hardwood plywood (HWPW) made with either a combination core (CC) or a veneer core (VC), particleboard (PB), and medium-density fiberboard (MDF)), or finished goods composed of such products made with no-added formaldehyde based (NAF-based) resins or ultra-low emitting formaldehyde (ULEF) resins, shall not release formaldehyde exceeding the regulatory limits. In lieu of testing, valid certificate or test report or certificate can be submitted if dated within one year.	

Labeling of Composite Wood Product - Formaldehyde Emission - State of California (if applicable)	Airborne Toxic Control Measure (ATCM), California Code of Regulations, Title 17, § 93120	All Samples	Composite wood products include finished goods composed of or containing hardwood plywood (HWPW) made with either a combination core (CC) or a veneer core (VC), particleboard (PB), and medium-density fiberboard (MDF)), or finished goods composed of such products made with no-added formaldehyde based (NAF-based) resins or ultra-low emitting formaldehyde (ULEF) resins, shall be labeled in accordance with the regulations and meet all applicable requirements. In lieu of testing, valid certificate or test report or certificate can be submitted if dated within one year.	
Labeling for Indoor Upholstered Furniture	16 CFR 1640	All Samples	Upholstered furniture must have a permanent label that states "Complies with U.S. CPSC requirements for upholstered furniture flammability". For submission received before June 25, 2022 non-compliance with this requirement will be rated as DATA. For submission received on or after June 25, 2022, non-compliance will be rated as a FAIL.	
Flammability for Indoor Upholstered Furniture	16 CFR 1640	All Samples	Upholstered furniture must comply with the flammability requirements of California Technical Bulletin TB 117-2013. For submission received before June 25, 2021 non-compliance with this requirement will be rated as DATA. For submission received on or after June 25, 2021, non-compliance will be rated as a FAIL.	
Construction Qualities				
Kohl's Workmanship Review	Visual Check / Actual Use	All Samples	-All components shall be provided as claimed and shall not be deformed or fractured. -All hardware shall be provided -All welds shall be smoothly finished and free from pits and splatter -All components shall not contain any burs or sharp edges (test by touch or sight) -Product shall not contain any loose components or unsecured fastening where rigidity is required -Filling material shall be free of objectionable matter and contaminants	
Physical Characteristics				
Overall Dimension (W X D X H Or Diameter)	Standard Measure (in/cm)	3 Samples	Max. +5% / -0% of claimed dimension. Record actual data if there is no claim.	Claim: Actual:
Overall Weight	Standard Measure (lb/kg)	3 Samples	Max. +5% / -0% of claimed weight. Record actual data if there is no claim.	Claim: Actual:
***UPHOLSTERY**				
Physical Characteristics				
Fiber Content (Shell Fabric & Filling Materials)	AATCC 20/20A	1 Sample	Single fiber only: no tolerance 2 or more fibers blend: ± 3% max. Functional fiber i.e. Spandex: ± 2% max.	
Foam Padding (Filling Material)	ASTM E 1252	1 Sample	Material identification by FTIR method.	
Fabric Weight (Oz. / Sq. Yd.)	ASTM D3776	1 Sample	As approved / as claimed / products specifications/as measured (+5% / -0%)	
Thread Count (Ends X Picks)	ASTM D3775	1 Sample	As approved / as claimed / products specifications/as measured (+5% / -0%)	
Defects	Visual Check	1 Sample	No major defects / two minor defects (max.)	
Evenness of Color	Visual Check	1 Sample	Shall provide uniform color	
Weight of Filling Material Foam Density	Std. Measure Std. Measure	1 Sample 1 Sample	± 5% (oz, lb) ± 5% (lb/ in3)	
Performance				
Fabric Strength				
Length	ASTM D 5034	1 Sample	Min. 50 lbs. / In.	
Width	ASTM D 5034	1 Sample	Min. 50 lbs. / In.	
Seam Strength	ASTM D1683	1 Sample	Min. 30 lbs. / In.	
Seam Slippage	ASTM D1683	1 Sample	Min. 25lbs @ ¼ in slippage	
Water Repellency Characteristics				
Surface Water Repelling	AATCC 22	1 Sample	Min. 90 ratings	
Water Resistance (Outdoor Use and If Claimed Only)	AATCC 35	1 Sample	Max. 1 gm water penetration at 2 ft for 2 min.	
Dimensional Change				

Dimensional Change to Home Laundering, Dry- Cleaning or Spot Clean (If Applicable)	AATCC 150 (3 Washes)/ AATCC 158 (1 Cycle) Tide® Powder Detergent	1 Sample	Wovens: ± 4% max. Knits: ± 8% max. Flannel: ± 6% max. (Length x Width) Dry Cleaning: ± 4% max.	
Appearance Retention (If Applicable)	AATCC/ASTM TS-008 (Modified) Tide® Powder Detergent	1 Sample	Must meet all applicable Kohl's Appearance Evaluation Requirements.	
Zipper				
Operability (Open/Closed)	ASTM D2062	1 Sample	Remains functional after 15 cycles	
Cross Widthwise Strength	ASTM D2061	1 Sample	Min. 50 lbs.	
Scoop Pull	ASTM D2061	1 Sample	Min. 10 lbs.	
Slider Torque	ASTM D2061	1 Sample	Min. 4 in-lbf.	
Top stop	ASTM D2061	1 Sample	Min. 20 lbs.	
Bottom Stop	ASTM D2061	1 Sample	Min. 20 lbs.	
Slider Pull	ASTM D2061	1 Sample	Min. 15 lbs.	
Colorfastness				
Dry Crocking	AATCC 8/116	1 Sample	Min. Class 4.0	
Wet Crocking	AATCC 8/116	1 Sample	Min. Class 3.0	
Chlorine Bleach And Non- Chlorine Bleach (If Claimed)	AATCC/ASTM TS-001	1 Sample	Min. Class 4.0 (Shade change)	
*Light Fading (For Outdoor Use Only)	AATCC 16E	1 Sample	Min Class 3.5. Report actual data at 20/40/60 hrs.	
PERFORMANCE				
Durability Of Folding Mechanism (If Applicable)	Actual Use	1 Sample	The chair shall be opened and closed as intended for 100 cycles with no failure.	
Caster Performance (If Applicable)	Std. Measure	1 Sample	Max 5 lbs. pulling force to move the chair loaded with 175 lbs. on the seat.	
Assessment of Potential Finger Entrapment And Squeeze And Shear Point	EN 581-1 Section 5	1 Sample	There shall be no accessible holes in the ends of tubular components with a diameter between 7 mm to 12 mm and with a depth more or equal to 10 mm. The bottom of tubular legs in contact with the floor shall be closed or capped, however, holes in them are allowed as long as they are not between 7 and 12 mm. Distance between two externally accessible parts relative to each other shall not be between 7 to 18mm when under the body weight (Shear and squeeze point).	
Protective Caps On Legs	Visual Check / Actual Use	All Samples	Shall be non - marring	
Flammability of Solid	16 CFR 1500.44	1 Sample	Burn rate<0.1"/ sec	
Resistance To Hot Water	Fed. Spec. AA-11- 001895B	1 Sample	Pour 25 ml of boiling water and allow it to cool down. Dried surface shall have no graying or spotting.	
*Cross-cut Adhesion (Plating & Surface Coating)	ASTM D 3359 (Mod.)	1 Sample	Cut 2 in. cross - hatch pattern on surface of plated and/or painted area. Plating and/or painted surface must remain affixed. Trace peeling or removal along incision or at their intersection is accepted. Modification= Scope expanded	
*Effects Of Extreme Temperature/Humidity (For Outdoor Use Only)	Kohl's TM 30	1 Sample	24 Hours @ 0° F (-18°C) and 24 Hours @ 95% RH/120° F (49°C) - no failure Size limitation to be determined.	
*Resistance To Corrosion (Metal components Only)	ASTM B117 G85 (Mod.)	1 Sample	Shall withstand 24 hours in 1% salt spray (fog) with no major visual change or corrosion. Modification = % of salt spray	
*Colorfastness To Light (Outdoor Use Only)	AATCC 16E	1 Sample	Min. Class 3.5 min. Report actual data at 20/40/60 hrs. Note: Rating by Grey Scale may not be suitable for certain furniture design e.g. natural stone. Under this circumstance, visual comparison of any color change against the control is acceptable.	
*Wood Moisture Content Back/Base/Leg	Std. Measure	1 Sample	Should be between 6-10% for solid wood only	
#Claim Verification (If Claimed)	Visual Check / Actual Use	1 Sample	All designs and features must conform to actual claim	Claim:
Strength of straps, buckles, lace toggle, ornament, decorative bow and related attachments	16CFR 1500 & 1501 SATRA TM181	1 Samples	Functional: No detachment at 40lbs Decorative: No detachment at 15lbs (Fragile trims: sequins, seed beads, miniature rhinestones & studs etc. must exceed 5lbs)	
*Tech Pack Verification (Needs to be provided – Lab HOLD if not provided)	Visual Check / Std. Measurement	1 Sample	Verify all claims mentioned in Tech Pack File	
PERFORMANCE (SINGLE SEATER ONLY) – SEATING LENGTH < 32" (not including armrests)				

Back Strength	ANSI/BIFMA X5.1-17 Sec. 5&6 (Mod.)	1 Sample	Shall be no loss of serviceability to the chair when 150 lbs. (non-tilt) and 200 lbs. (tilt) is applied to 90° from back at 16 In. above the seat for 1 min. Modification= Loading parameter changed	
Front Seating Capability	ANSI/BIFMA X5.1 Section 11.4 (Mod.)	1 Sample	No loss of serviceability to the chair under 300 lbs. loading at edge (6 In.) Modification= Loading parameter changed	
Base Strength	ANSI/BIFMA X5.1 Section 7 (Mod.)	1 Sample	No structural failure under 500 lbs. compression for 1 min. Modification= Loading parameter changed	
Seat Dynamic Impact	ANSI/BIFMA X5.1-17 Sec. 7 (Mod.)	1 Sample	Shall be no loss of serviceability to the chair when a 225 lbs. weight free-falls from 6 In. to the center of the seat for 1 time (height non- adjustable). For the with seat height adjustment features, test it separately in the highest and lowest position. **Butterfly Chair 200lbs**	
Arm Strength Test (Vertical)	ANSI/BIFMA X5.1-17 Sec. 12 (Mod.)	1 Sample	There shall be no loss of serviceability when the vertical load of 169 lbs is uniformly applied through a 5 In. area at the apparent weakest point for 1 min. Modification= Loading parameter changed	
Arm Strength Test (Horizontal)	ANSI/BIFMA X5.1-17 Sec. 13 (Mod.)	1 Sample	Shall be no loss of serviceability when the horizontal force of 75 lbs is applied to arm rest at the most forward point of the arm rest area for 1 min. Modification= Loading parameter changed	
Leg Strength (Front / Side)	ANSI/BIFMA X5.1-17 Sec. 17 (Mod.)	1 Sample	Front Load Test: The load of 75 lbs is applied once to each front leg individually for one (1) minute shall cause no loss of serviceability. Modification= Loading parameter changed	
		1 Sample	Side Load Test: The load of 75 lbs is applied once to a front and rear leg individually for one (1) minute shall cause no loss of serviceability. Modification= Loading parameter changed	
Stability	ANSI/BIFMA X5.1-17 Sec 11.4 (Mod.)	1 Sample	Apply a vertical force of 135lbs by means of the loading pad at a point 2.4inches from the edge of the seat nearest the stopped feet. Apply a horizontal force of 4.5lbf through the center of the seat in a direction towards the stopped feet. The unit shall not tip over Modification: Scope expanded	
Stability Test - Rear Stability for Type III Chairs	ANSI/BIFMA X5.1-17 Sec. 11	1 Sample	Load the chair with 6 disks (22lb each, total 132lb), apply a horizontal force to the highest disk, The location of the force application is 6 mm (0.25 in.) from the top of the disk. For chairs with seat height less than 710 mm (28.0 in.), calculate the force as follows: F = 0.1964 (1195 – H) Newton. H is the seat height in mm. [F = 1.1 (47 – H) pounds force.]. H is the seat height in inches. For chairs with seat height equal to or greater than 710 mm (28.0 in.), a fixed force of 93 N (20.9 lbf.) shall be applied. The chair shall not tip over.	Applied horizontal force :
Stability Test - Rear Stability for Type I and II Chairs	ANSI/BIFMA X5.1-17 Sec. 11	1 Sample	Load the chair with 13 disks (22lb each, total 286lb), place the first disk on the seat so it touches the support fixture. The chair shall not tip over.	
Stability of Rocking Chair (If Applicable)	EN 1022 Section 7.4.5	1 Sample	When loaded with 8 discs (22lb each, total 176lb) against the chair back. The rocking chair shall not overturn when rock forwards to vertical position and rearwards freely under gravity.	
PERFORMANCE (MULTIPLE SEATING STYLE) – SEATING LENGTH > 32” (not including armrest)				
Backrest Strength Test	ANSI/BIFMA X5.4 Section 5	1 Sample	No loss of serviceability when a force of 667 N (150 lbf.) per seating position shall be applied simultaneously for one (1) minute. Modification= Loading parameter changed	
Seat Dynamic Impact	ANSI/BIFMA X5.4 Section 14	1 Sample	A functional load applied once to each seating position shall cause no loss of serviceability. The test bag (225 lb) shall be raised 152 mm (6 in.) above the uncompressed seat and released one (1) time. Remove the bag and repeat setup and functional procedures for each remaining seating position. Modification= Loading parameter changed	

Arm Strength Test (Horizontal)	ANSI/BIFMA X5.4 Section 9 (Mod.)	1 Sample	No loss of serviceability under the following loads. For units with a distance between the arms less than 889 mm (35 in.), a force of 445 N (100 lbf.) shall be applied for one (1) minute in the inward direction. For units with distance between the arms greater than or equal to 889 mm (35 in.), a force of 592 N (133 lbf.) shall be applied for one (1) minute in the inward direction. Modification= Loading parameter changed	
Arm Strength Test (Vertical)	ANSI/BIFMA X5.4 Section 10 (Mod.)	1 Sample	No loss of serviceability under the following loads. - For units with armrest width of greater than 75 mm (3 in.) a force of 890 N (200 lbf.) shall be applied for one (1) minute. - For units with an armrest width of less than or equal to 75 mm (3 in.). a force of 750 N (169 lbf.) shall be applied for one (1) minute. Modification= Loading parameter changed	
Leg Strength (Front / Side)	ANSI/BIFMA X5.1-17 Sec. 17 (Mod.)	1 Sample	Front Load Test: The load of 75 lbs is applied once to each front leg individually for one (1) minute shall cause no loss of serviceability. Side Load Test: The load of 75 lbs is applied once to a front and rear leg individually for one (1) minute shall cause no loss of serviceability. Modification= Loading parameter changed	
Stability	ANSI/BIFMA X5.1 Section 13.4 & Section 13.5.2	1 Sample	Modification = Loading parameter changed a downward force shall be applied initially at 45° ± 5° to the test platform by attaching a strap, not to exceed 76mm (3in) in width, centered over the front portion of the seat. The force shall be applied until the total unit weight is transferred to the front support members The force shall not be less than 40% of the weight.	
Rear Stability for Non-tilting Units	ANSI/BIFMA X5.4 Section 21.3	1 Sample	Load the seat (or, for multiple seat units, load the seat of one of the seating positions) with 6 disks (22lb each, total 286 lb). Apply a determined horizontal force to the highest disk. The location of the force application is 6 mm (0.25 in.) from the top of the disk. The application of the force shall not cause the unit to tip over.	Applied horizontal force :
Rear Stability Test for Tilting Units	ANSI/BIFMA X5.4 Section 21.4	1 Sample	Load one seat position with 13 disks. Place the first disk on the seat so it touches the support fixture. As each disk is added to the stack slide it along the lower disk until it contacts the support fixture, As each disk is added, the backrest may move such that the lower disks do not remain against the support fixture; this is acceptable, do not reposition the disks. If the unit does not tip over and the tilt mechanism does not tilt to its most rearward position (i.e., at its tilt stop) when the disks are placed in the seat. The application of the force shall not cause the unit to tip over.	Total force applied:
PERFORMANCE (HEIGHT ADJUSTABLE DESK CHAIRS OR OFFICE CHAIRS.)				
Adjustability	Actual Use	1 Sample	Adjustment range of features / functions (seat pan, lumbar support, etc) shall meet claims, specification on the instruction literature.	
Base Test – Static	ANSI/BIFMA X5.1 Section 7	1 Sample	[Pedestal base] No sudden and major change in the structural integrity 2500 lbs compression applied for 1 min. The weight is then removed and reapplied for 1 min. The center column may not touch the test platform during load applications.	
Back strength	ANSI/BIFMA X5.1-17 Section 5&6 (Mod.)	1 Sample	There shall be no loss of serviceability to the chair when 150 lbs. (non-tilt) and 200 lbs. (tilt) is applied to 90° from back at 16 In. above the seat for 1 min. Modification= Loading parameter changed	
Front Seating Capability	ANSI/BIFMA X5.1 Section 11.4 (Mod.)	1 Sample	No loss of serviceability to the chair under 300 lbs. loading at edge (6 In.) Modification= Loading parameter changed	
Drop Test – Dynamic – Functional Load	ANSI/BIFMA X5.1-17 Sec. 7 (Mod.)	1 Sample	No structural breakage or loss of serviceability when 225 lbs free falls from 6 In. height to the center of the seat. Modification= Loading parameter changed	
Arm Strength Test (Vertical)	ANSI/BIFMA X5.1-17 Sec. 12 (Mod.)	1 Sample	There shall be no loss of serviceability when the vertical load of 169 lbs is uniformly applied through a 5 In. area at the apparent weakest point for 1 min. Modification= Loading parameter changed	
Arm Strength Test (Horizontal)	ANSI/BIFMA X5.1-17 Sec. 13 (Mod.)	1 Sample	There shall be no loss of serviceability when the horizontal force of 100 lbs is applied to arm rest at the most forward point of the arm rest area for 1 min. Modification= Loading parameter changed	

*Seating Durability Test – Cyclic	ANSI/BIFMA X5.1-17 Sec. 10 (Mod.)	1 Sample	No structural breakage or loss of serviceability in 100,000 cycles when 125 lbs free falls from 1 In. height above the resting point on the seat. Modification = Falling height changed.	
Front Stability	ANSI/BIFMA X5.1-17 Sec. 11	1 Sample	The chair shall not tip over when Apply a vertical load of 600 N (135 lbf.), through a 200 mm (7.87 in.) diameter disk, the center of which is 60 mm (2.4 in.) from the front center edge of the load-bearing surface of the seat, then apply a horizontal force of 20 N (4.5 lbf.) at the same level of the plane of the top of the seat. The force shall be coincident with the side-to-side centerline of the seat.	
Stability Test - Rear Stability for Type III Chairs	ANSI/BIFMA X5.1-17 Sec. 11	1 Sample	Load the chair with 6 disks (22lb each, total 132lb), apply a horizontal force to the highest disk, The location of the force application is 6 mm (0.25 in.) from the top of the disk. For chairs with seat height less than 710 mm (28.0 in.), calculate the force as follows: F = 0.1964 (1195 – H) Newton. H is the seat height in mm. [F = 1.1 (47 – H) pounds force.]. H is the seat height in inches. For chairs with seat height equal to or greater than 710 mm (28.0 in.), a fixed force of 93 N (20.9 lbf.) shall be applied. The chair shall not tip over.	Applied horizontal force :
Stability Test - Rear Stability for Type I and II Chairs	ANSI/BIFMA X5.1-17 Sec. 11	1 Sample	Load the chair with 13 disks (22lb each, total 286lb), place the first disk on the seat so it touches the support fixture. The chair shall not tip over.	
PERFORMANCE (CHAISE LOUNGE CHAIR)				
Rearward Stability – only for backrest greater than 200mm	UL 4041	1 Sample	[backrest in most upright position or fixed backrest with an angle equal to or greater than 55°] Load the seat of one of the seating position with 6 disks. Apply a horizontal force to the highest disk, the location of the force application is 6 mm from the top of the disk. F=0.1964 (1195-H)*2.2/9.8 lbs. If seat height less than 710mm; F=21lbs, if the seat height equal or greater than 710mm. The sample should not tip over	
Rearward Stability – only for backrest greater than 200mm	UL 4041	1 Sample	[backrest in most upright position or fixed backrest with an angle less than 55°] Load the back of the sample with 8 loading disks, using a light wear support device and place 3 loading disks onto the footrest at a distance Z from the intersection of the seat and back The sample should not tip over	
Sideway stability	UL 4041	1 Sample	Vertical force of 132lbs shall be applied at points C, D and E. If the arm rest is more than 406 mm long, a vertical force of 55lbs shall be applied at point F (the central point of the armrest), instead that the 132lbs force in point C. The forces shall be applied simultaneously for a minimum of 10 s. The sample should not tip over	
Forward stability	UL 4041	1 Sample	A downward force of 132lbs shall be applied to the load point 64 mm from the foot end of the chaise lounge chair. Simultaneously, and an outward horizontal force of 4.4lbs shall be applied to the chaise lounge chair at the same height where the loading pad is in contact with the chaise lounge chair surface. The forces shall be applied for a minimum of 10 s. The sample should not tip over	
Drop test	UL 4041	1 Sample	A 224lbs test bag shall be raised 6in above the uncompressed seat and release one time. The location should be as below. The sample should not loss serviceable 	
Backrest static	UL 4041	1 Sample	A force 150lbs shall be applied to the back at the back loading position for 1 minute. The sample should not loss of serviceability.	
Seat durability	UL 4041	1 Sample	A test bag 125lbs shall drop from 1.2in and repeat for 10,000 cycles. There shall be no loss of serviceability.	

Arm strength - vertical	UL 4041	1 Sample	Apply a vertical force 165lbs at the apparent weakest point that is forward of the chair backrest for 1 minute. There shall be no loss of serviceability.	
Arm strength - horizontal	UL 4041	1 Sample	Apply a horizontal pull force 100lbs at the apparent weakest point for 1 minute. There shall be no loss of serviceability.	
Backrest durability	UL 4041	1 Sample	A weight of 240lbs shall be secured in the center of the seat and apply 75lbs to the backrest. The total durability number is 25,000 cycles. There shall be no loss of serviceability.	
Leg strength	UL 4041	1 Sample	A force 75lbs shall be applied once to each leg 0.5in-1.5in from the end of the leg for 1 minute and there shall be no loss of serviceability.	
Lift test for mobile lounger	UL 4041	1 Sample	A load of 286lbs shall be place on the chaise lounge at a point 175 mm (6.9 in) forward of the seat/back junction on the longitudinal axis of the chaise lounge chair, or the point closest to this that allows the seat force to be applied. It shall be lifted until only the wheels are touching the floor. Then the chair shall be lowered gently to completely remove the lifting force. The test should be run for 800 cycles. At the end of the cycles the chair shall not lose any of its functionality.	
PERFORMANCE (SWING HANG CHAIR.)				
Back Strength	ANSI/BIFMA X5.1-17 Sec. 5&6 (Mod.)	1 Sample	Shall be no loss of serviceability to the chair when 150 lbs. (non-tilt) and 200 lbs. (tilt) is applied to 90° from back at 16 In. above the seat for 1 min. Modification= Loading parameter changed	
Front Seating Capability	ANSI/BIFMA X5.1 Section 11.4 (Mod.)	1 Sample	No loss of serviceability to the chair under 300 lbs. loading at edge (6 In.) Modification= Loading parameter changed	
Seat Dynamic Impact	ANSI/BIFMA X5.1-17 Sec. 7 (Mod.)	1 Sample	Shall be no loss of serviceability to the chair when a 100 lbs. weight free-falls from 6 In. to the center of the seat for 1 time (height non- adjustable). For the with seat height adjustment features, test it separately in the highest and lowest position. Modification= Loading parameter changed Starting for Spring 2017 175lbs (non-folding chairs) 160lbs (folding collapsible chairs)	
Arm Strength Test (Vertical)	ANSI/BIFMA X5.1-17 Sec. 12 (Mod.)	1 Sample	There shall be no loss of serviceability when the vertical load of 169 lbs is uniformly applied through a 5 In. area at the apparent weakest point for 1 min. Modification= Loading parameter changed	
Arm Strength Test (Horizontal)	ANSI/BIFMA X5.1-17 Sec. 13 (Mod.)	1 Sample	Shall be no loss of serviceability when the horizontal force of 75 lbs is applied to arm rest at the most forward point of the arm rest area for 1 min. Modification= Loading parameter changed	
Front and Rear Stability Test for Hanging Chairs	UL 4041	1 Sample	Load the chair with the 11 disks as alternative to rest against the chair back. For multiple seating, only load one of the most adverse position. Pull the seat back in the direction causing the least stability (the median plane may not be the most critical direction) until the chair touches the support bar, or any restriction is reached, or up to 25°. Release the seat and allow it to swing. Stops can be used during the testing. The chair should not overturn	
Seating durability	UL 4041	1 sample	Apply 110kg(242lbs) through D=16inch pad onto the center of the seat and repeat for 10,000cycles. The chair should not loss serviceability.	
ADDITIONAL PERFORMANCE TESTS FOR CHAIRS WITH SPECIFIC FEATURES				
*Swivel Durability	ANSI/BIFMA X5.1-17 Sec. 8 (Mod.)	1 Sample	No structural breakage of loss of serviceability in 120,000 cycles of rotation (360°) under a 225 lbs. load on the seat. Adjust the test load to maximum weight capacity when there is such a claim on the product. Modification = Loading parameter changed, rotation angle changed	
*Caster Durability	ANSI/BIFMA X5.1-17 Sec. 16 (Mod.)	1 Sample	No structural failure or loss of service after 100,000 cycles (30 In. forward / backward stroke) under a 225 lbs. load on the seat. Adjust the test load to maximum weight capacity when there is such a claim on the product. Modification = Loading parameter changed	
*Tilt Mechanism Durability	ANSI/BIFMA X5.1-17 Sec. 9 (Mod.)	1 Sample	No structural breakage or loss of serviceability in 200,000 cycles under a 225 lbs. load on the seat. Adjust the test load to maximum weight capacity when there is such a claim on the product. Modification = Loading parameter and cycles changed	

*Oscillation Fatigue Test (applicable for glider chairs)	Actual Use	1 Sample	Put 240lbs (109kg) at each seat loading position, if it is multiple seating, divide the seat width by 570mm. The cycling device shall be adjusted to apply a “push-pull” action, or alternately may be applied by alternating pull (or push) force application on alternating sides of the unit. One cycle shall consist of one outward oscillation and one inward oscillation movement up to 25° or 200 mm from middle position in each oscillation direction whichever is lower, or to the swinging stop (whichever is the less) in both directions. The sample shall be tested at an appropriate rate between 10 and 30 cycles per minute for 12,500 cycles.	
PERFORMANCE (FUTON)				
Construction	Visual Check / Actual Use	1 Sample	-Exposed edges and protruding parts shall be rounded and without open- ended tubes. -Shear and squeeze points are not acceptable if a hazard is created by the weight of itself or the user during assembly or normal use. -When the bed is fully erected and ready for use, all accessible mechanisms that facilitate frame movement moving relative to each other which shall always be ≤8mm or ≥25mm (≤ 5/16” or ≥ 1”). -When there is a specific danger of feet being trapped by a moving part, the safety distance shall always be ≥4 inch from the floor.	
Stability Test (Bed / Bed Base)	EN 1725 Section 7.2 (Mod.)	1 Sample	The bed should have ability to withstand forces that tend to cause the loaded article to overbalance when tested according to the method. Modification = Scope expanded	
Horizontal Static Load Test (Headboard)	BS 8509 Section 21 (Mod.)	1 Sample	Apply a horizontal backward force 110 lbs to the center of headboard for 1min, then check if the headboard is demounted to the bed frame and without any breakage and permanent deformation. Modification = Scope expanded	
Vertical Impact Test (Bed / Bed Base)	EN 1725 Section 7.4 (Mod.)	1 Sample	Allow an impactor weighing 55 lbs to fall freely from a height of 7-3/32 inch onto the mattress at different points specified. All components shall pass this test without fracture or the deformation that may compromise safety. Modification = Scope expanded	
Drop Impact Test	ANSI/SOHO S6.5 Section 10 (Mod.)	1 Sample	Must be serviceable without any damage or malfunction when one end of table is dropped from a height of 10 In. Modification = Scope expanded	
Vertical Static Load Test (Bed / Bed Base)	EN 1725 Section 7.6 (Mod.)	1 Sample	Apply a vertical force of 308 lb downwards for ten (10) times at any point of the bed base where failure is considered likely to occur. Modification = Scope expanded	
Static Distributed Load Test (Bed / Bed Base)	ASTM F 1427 Section 4.4 (Mod.)	1 Sample	Evenly distribute the loading weight of 440 lb on the bed board, for one hour. After testing, there shall be no deformation or damage that may compromise safety. Modification = Loading parameter changed	
Vertical Static Load Test of the Edge of the Bed	EN 1725 Section 7.7 (Mod.)	1 Sample	Apply two forces of 264 lb simultaneously for 1 min on the centerline of the bed frame side member. All components shall pass this test without fracture; after testing, there shall be no deformation that may compromise safety. Modification = Scope expanded	
*Durability Test (Bed / Bed Base)	EN 1725 Section 7.3 (Mod.)	1 Sample	Apply a vertical downward force of 220 lb for 10,000 times at each specified position point. All components shall pass this test without fracture; after testing, there shall be no deformation that may compromise safety. Modification = Scope expanded	
*Edge Durability Test (Bed / Bed Base)	EN 1725 Section 7.5 (Mod.)	1 Sample	Apply a force of 220 lb for 5,000 cycles on one edge at the middle of the length. All components shall pass this test without fracture; after testing, there shall be no deformation that may compromise safety. Modification = Scope expanded	
CALIFORNIA TECHNICAL BULLETIN 117				
***Cover Fabric**				
Section 1	C.T.B. 117- 2013	1 Sample	(See attached test results / requirements)	
***Barrier Materials**				
Section 2	C.T.B. 117- 2013	1 Sample	(See attached test results / requirements)	
***Resilient Filling Material**				
Section 3	C.T.B. 117 - 2013	1 Sample	(See attached test results / requirements)	
***Decking Material**				
Section 4	C.T.B. 117 - 2013	1 Sample	(See attached test results / requirements)	

ANALYTICAL				
*Lead In Scrapable Surface Coating	CPSC-CH-E1003-09	1 Sample	≤ 90 ppm (0.009% by weight) (CPSA – 16 CFR 1303)	
*Formaldehyde (Applicable To Upholstery Shell Fabric Only)	prEN ISO TS 17226 ISO 14184-1	1 Sample	<75 ppm	
**CA Prop 65 (if applicable)	Refer to Protocol 1300	All Samples	All samples shall be reviewed against the requirements of California Proposition 65 to determine if additional testing or labeling is required.	
PFAS Supplemental Protocol	Refer to Protocol 1600	All Samples	All samples shall be reviewed against the requirements of PFAS Supplement Protocol to determine if additional testing or labeling is required	
Refer to protocol Hardlines Regulatory Supplement for additional State & Federal Regulations	Refer to Protocol 1800	All Samples	All samples shall be reviewed against the requirements of the Hardlines Regulatory Supplemental Protocol (State Regulation Only) to determine if additional testing or labeling is required	
Please consult with Lab for the number of samples. **Pricing: Please refer to Kohl's preferred third party labs for individual pricing**				

Protocol Version	Description of Change	Revised by / Date	Approved by / Date
406 – 0	Initial Release	CY Chan Feb 10, 2004	Roger Mayerson Mar 08, 2004
406 - 1	Update ASTM Standard from D1682 to D5034, change Light Fading to outdoor only, update CA 117 labeling wording, delete static wetting.	Simon Leung June 21, 2004	Roger Mayerson July 01, 2004
406 – 2	Revise Performance Heading	Simon Leung Dec 20, 2004	Roger Mayerson Dec 20, 2004
406 – 3	Added 19 CFR 134. Added Instructional Literature/Assembly Instruction. Added Maximum Weight Capacity Labeling. Added Composite Wood Products Labeling. Added Fiber Content Label/Care Label. Added Overall Dimension & Weight Measurement. Added Upholstery Tests, Added Caster Performance Test. Added Stability Test for Rocking Chair. Added Performance Test for Two Seater. Added Optional Tests. Added Flammability Test. Added Effects of Extreme Temperature/Humidity Test (Outdoor Use Only). Add Cross-cut Adhesion Test. Add Colorfastness to Light Test. Updated Finger Entrapment & Squeeze & Shear Point Test. Resistance to Corrosion (Metal Components Only) Applicable to Indoor & Outdoor Uses. Changed Wood Moisture Content to 6-10%. Changed Lead in Surface Coating Limit to 90 ppm. Added Formaldehyde (Upholstery) Test Price Adjustment.	Simon Leung Oct 19, 2009	Ro Jain Oct, 31, 2009
406-A	Changed protocol number from 406-3 to 406-A, price adjustment	Elizabeth Armstrong April 1, 2010	Ro Jain April 1, 2010
406-B	1. Added Performance Requirements for Desk Chair. 2. Added Performance Requirements for Futon. 3. Updated the Section Heading “OPTIONAL TEST” to “ADDITIONAL PERFORMANCE TESTS FOR CHAIRS WITH SPECIFIC FEATURES”. 4. Updated Test Method for Lead in Scrapable Surface. 5. Coating from ASTM to CPSC. 6. Updated Price Table for TB 117 & Added New Prices for Desk Chair and Futon	Simon Leung September 15, 2011	Ro Jain September 15, 2011
406-C	Updated sample size	John Wong Mar 26, 2013	Ro Jain Apr 15, 2013
406-D	Restructured the test requirement of multiple seating chairs Revised the strength and stability test of seating with reference to the update standards. Revised the applicable material of wood moisture content. Added the CA Prop 65	Bill Wang Apr 15, 2013	Ro Jain May 27, 2013

406-E	Updated the flammability test requirement of CALIFORNIA TB 117 to 2013 version	Hary Nie Dec 13, 2013	Ro Jain Feb 10, 2014
406-F	Added Tech Pack Verification	Candy Chan Feb 10, 2014	Ro Jain Mar 7, 2014
406-G	Revised the unit of “Weight of Filling Material” Added Foam Density Test Add “If Claimed” in Water Resistance test line. Updated lead and resistance to corrosion test pricing	Hary Nie Jul 30, 2014	Jeetendra Shelatkar Aug. 4, 2014
406-H	Renamed all in-house methods Updated the CA Technical Bulletin 117 Labeling	Candy Chan Oct 24, 2014	Jeetendra Shelatkar Oct 27, 2014
406-I	Updated the cycle of Durability Of Folding Mechanism from 10 cycles to 100 cycles	Quincy Chan Dec 10, 2014	Elizabeth Armstrong Dec, 11, 2014
406-J	Added specific measurements for performance testing on single seater and multi-seater testing	Elizabeth Armstrong Aug 28, 2015	Elizabeth Armstrong Aug 28, 2015
406-K	Updated Law label requirement and TB 117-2013 requirements	Elizabeth Armstrong Sept 28, 2015	Jeetendra Shelatkar Sept 28, 2015
406-L	Updated AI & Tech pack testing results/rating	Elizabeth Armstrong March 14, 2016	Jeetendra Shelatkar March 14, 2016
406-M	Updated seat dynamic impact test weight req: Single Seater Only Non folding chairs 175lbs Folding items (collapsible) 160lbs Starting Spring 2017	Elizabeth Armstrong April 12, 2016	Elizabeth Armstrong April 12, 2016
406-N	Added Labeling – US EPA Formaldehyde Emission	Cindy Ng May 8, 2017	Teana Robinette May 8, 2017
406-O	Updated BIFMA methods to new industry standards	Elizabeth Armstrong May 10, 2017	Elizabeth Armstrong May 10, 2017
406-P	Added FSC Certificate requirements	Elizabeth Armstrong Sept 7, 2017	Elizabeth Armstrong Sept 7, 2017
406-Q	Added Prop 65 Requirements	Elizabeth Armstrong Dec 13, 2017	Elizabeth Armstrong Dec 13, 2017
406-R	Updated to new finger entrapment	Elizabeth Armstrong Jan 25, 2018	Elizabeth Armstrong Jan 25, 2018
406-S	Updated CARB Labeling & EPA	Elizabeth Armstrong June 22, 2018	Elizabeth Armstrong June 22, 2018
406-T	Added seam slippage requirements	Elizabeth Armstrong Aug 29, 2018	Elizabeth Armstrong Aug 29, 2018
406-U	Added Attachment strength testing if applicable and updated the stability test method for rocking chairs	Elizabeth Armstrong Dec 4, 2018	Elizabeth Armstrong Dec 4, 2018
406-V	Added import permit req & adult tracking label	Elizabeth Armstrong April 22, 2019	Elizabeth Armstrong April 22, 2019

406-W	Added performance testing requirement for glider chairs	Elizabeth Armstrong July 11, 2019	Elizabeth Armstrong July 11, 2019
406-X	Added performance testing for lounge chairs	Elizabeth Armstrong July 24, 2019	Elizabeth Armstrong July 24, 2019
406-Y	Added performance testing for swing/hang chairs	Elizabeth Armstrong Aug 27, 2019	Elizabeth Armstrong Aug 27, 2019
406-Z	Updated requirements for TB 117-2013	Elizabeth Armstrong November 26, 2019	Elizabeth Armstrong November 26, 2019
406-ZA	Added in EPA/CARB certificate requirements, deleted “data only” from adult tracking label and removed “not provided from Tech Pack verification	Elizabeth Armstrong June 11, 2020	Elizabeth Armstrong June 11, 2020
406-ZB	Added new flammability requirements Flammability for Indoor Upholstered Furniture & Labeling for Indoor Upholstered Furniture	Elizabeth Armstrong March 15, 2021	Elizabeth Armstrong March 15, 2021
406-ZC	1. Updated new flammability requirements and labeling for Indoor Upholstered Furniture 2. Added should be rated as pass/fail for adult tracking label	Charlene Swanson July 22, 2021	Charlene Swanson July 22, 2021
406-ZD	Corrected/updated new flammability requirements and labeling for upholstered furniture	Charlene Swanson August 25, 2021	Charlene Swanson August 25, 2021
406-ZE	Added PFAS Test Line	Kevin Makocy March 21, 2022	Kevin Makocy March 21, 2022
406-ZF	Updated requirements for seat dynamic impact test	Elizabeth Armstrong April 2022	Elizabeth Armstrong April 2022
406-ZG	Updated stability requirements to include ANSI/BIFMA X5.1-17 S	Elizabeth Armstrong Nov 2022	Elizabeth Armstrong Nov 2022
406-ZH	Removed test line Front Stability, as it was duplicative to test line	Elizabeth Armstrong Nov 2022	Elizabeth Armstrong Nov 2022
406-ZI	UPdated seat dynamic impact test to be 200lbs for butterfly chai	Elizabeth Armstrong Nov 2022	Elizabeth Armstrong Nov 2022
406-ZJ	Updated 1800 Hardlines Regulatory Supplement for additional St	Isaac Grossman February 2025	Isaac Grossman February 2025