

# QUALITY TESTING

We start at the beginning. Our worldwide testing labs continually perform a variety of tests on our raw materials to ensure the quality of the "building blocks" we use to manufacture our furniture. We perform rigorous scientific analysis on existing and potential materials to make sure we are always on the cutting edge of technology. We also continually test our systems and processes to assure our construction and assembly methods meet our stringent specifications. Finished products are subjected to critical evaluations.

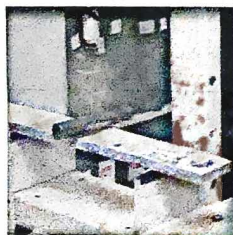
We have state-of-the-art equipment that is used to evaluate and monitor materials and products for durability, appearance, feel (hand) and overall performance. These analyses guide us to use the materials that best match the needs of our customers.

Ashley's clear and comprehensive approach to improving the quality of our products adds to our reputation as a "World-Class Furniture Manufacturer". Drawing from over 65 years of innovation, Ashley has become the largest manufacturer of quality furniture products.

Quality testing labs in Arcadia, WI; Ecru, MS; Leesport, PA; Colton, CA; Shanghai, China and Vietnam stay in constant communication as tests and product standards are developed and executed both in the lab and on the factory floor.

Ashley's objective is 100% out of the box quality and we work toward that goal every day.

## UPHOLSTERY TESTING



**Break/Bend Strength Tester:** Determines strength at various times (wood, structural steel, floor rails). This device subjects materials to concentrated force. This test consists

of many variations, and is used to evaluate (1) Break strengths for all types of wood materials, fasteners and glue. (2) Bend strengths for metal rails and structural steel.



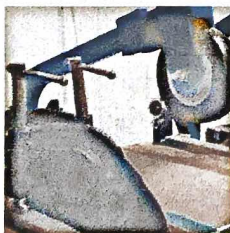
**Abrasion Tester:** Determines cover material abrasion re-

sistance. We use these tests to find fabrics that are likely to provide long term durability. Ashley follows American Home Furnishings Alliance (AHFA) and American Society for Testing and Materials (ASTM) testing procedures by performing Abrasion tests to both directions of our fabrics. This test rubs the face of the fabric against a wire screen for thousands of cycles.



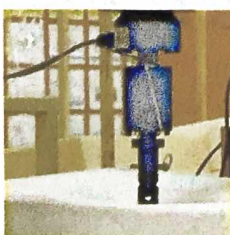
**Physical Properties Tester:** Tests properties of various materials (seam, fabric and tear strength). Ashley follows AHFA\* and ASTM\*\* testing procedures by performing

tensile tests, seam breakage tests, elongation tests, and tear tests to both directions of our fabrics. It is very effective in showing if a fabric has weaknesses in physical strength that would become apparent during assembly or during use by the customer.



**Dynamic Seam Fatigue:** Determines resistance to seam separation. We test our sewn seams to improve the quality consistency of our products. Ashley follows AHFA and

ASTM testing procedures by reforming Dynamic Seam Fatigue Testing to all direction combinations (Warp/Warp, Fill/Fill, and Warp/Fill). This test fatigues the seams by dropping a calibrated weight thousands of times.



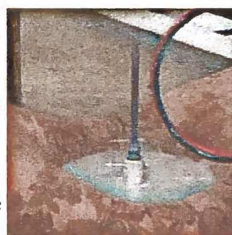
**Cushion Firmness:** Determines compression/firmness of the cushion. This test ensures consistency and quality of the cushion by ensuring the cushion is not too soft or too firm.

Ashley believes in a "Just Right" feel for our cushions. Our Design department chooses a specific grade of "Firmness" from 4 different choices, and then matches it with the rest of the seating system. Ashley tests foam pours seeking correctness and low-variability in consistency. After a break-in period of use, the cushion will soften slightly.



**Cushion/Fiber Density:** Measures density of the cushion/fiber. These tests ensure durability of filling materials by ensuring that cushion and fiber densities are within specifications. Density is

a measure of how much active ingredients (versus air) are in a cushion. Our vendors know we expect consistency and durability. To get it, Ashley inspects its pours of foam and batches of fiber to find the right amount of the correct materials in its furniture products.



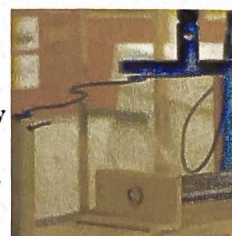
**Fiber Resilience/Durability:** Determines loft and resiliency of cushion fiber. This test ensures long-term durability by evaluating the ability for loose polyester fiber to recover its loft

after being crushed through use. Ashley performs resilience and durability testing of all our fiber types. We use benchmark tests to find materials that are likely to provide minimal loss after repeated test cycles.



**Bouncing Test:** Evaluates cushion durability, frame integrity and seat deck durability. This test consists of many variations, and is used to evaluate cushion and fiber durability, frame

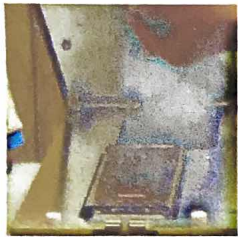
integrity, seat-deck durability, etc. Weights are dropped onto the materials for cumulative cycles.



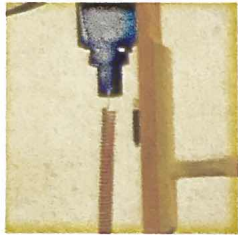
**Seat Spring Compression/Firmness:** Determines compression of seat and back springs. Ashley recognizes the springs to be an integral part of the comfort of the entire seating foundation,

and has set up testing parameters to monitor the springs attributes against our standards.





**Crockmeter:** Determines colorfastness when rubbed. This test determines the colorfastness of covers by applying wet and dry rubs.



**Recliner Spring:** Tensile Test Determines force to pull recliner springs. This test ensures consistency between motion furniture by ensuring the springs are not too weak or too firm for opening and closing the recliners.



**Open Flame:** Evaluates foam flammability resistance. This test ensures that raw materials meet flame retardancy requirements for open flame tests.

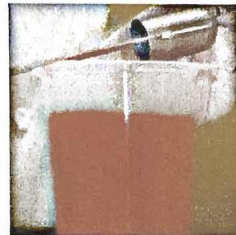
**Leather Field Inspection:** Our leather goes through stringent inspections at the supplier and at our cutting facilities. Some of these tests include the following: Colorfastness to crocking (wet & dry), Colorfastness to rubbing (wet, dry, and perspiration), Tensile and Elongation testing, Tear test, Cold crack resistance, Finish Adhesion, Blocking, Colorfastness to migration, Colorfastness to water spotting,

**Recliner Mechanism Tests:** Recliners weight tested for strength and durability. Pressure is applied against moving parts to test capacity. Power recliners are cycle tested for motor durability and longevity.

## CASEGOODS TESTING



**Standard Testing Devices:** Assures that purchased components meet or exceed requirements. These testing devices are often utilized to determine holding strength of screws, staple, or glue.



**Viscosity and Color Check:** Inspect finishing materials to control samples on a regular basis. A viscosity check is performed on the retains that come from the supplier prior to production materials arriving. These retains will get checked for viscosity and color by our color computer. If the retain passes, it will get released for production.



**Tip-Over Test:** Tests Standard Safety Specifications for chests, door chests and dressers that provide clear guidelines and procedures to assure safety is built in all Casegoods.

These laws contain stringent tests as well as labeling requirements intended to minimize accidents to children resulting from normal use and reasonable misuse.

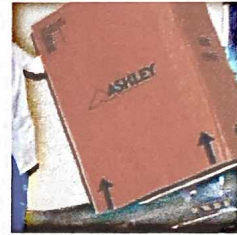
**Handheld Test:** Determines appropriate levels of desired drag during the operation of the drawer. Digital data is collected and docu-



mented, then fed back to suppliers to drive product improvements. Data can be collected and improvements can be derived and documented.



**Product Vibration:** Test Simulates product vibration during transportation. This test imitates the vibration products will be subjected to as they are shipped via truck or rail container. Results drive package improvements to reduce damage.



**Product Drop Test:** Simulates product handling in the warehouse distribution cycle. Drop tests are conducted on products from different heights and orientations that could occur during the product handling process. Results drive package improvements to reduce damage.



**Bunk Bed Testing:** Testing regulations and law mandated by the federal government under F1427 Standard Consumer Safety Specifications for bunk beds. Ensures Ashley products meet various rules regarding bunk bed construction including, standard allowable gaps, maximum weight/duration, proper rail and ladder connections. These laws contain stringent test requirements intended to minimize accidents to children resulting from normal use and reasonable foreseeable misuse or abuse of bunk beds.

## ENVIRONMENTAL IMPACT

For Ashley, environmental stewardship begins at home. We continually seek to recycle, reuse and replenish every day.

Ashley restored and enhanced wetlands totaling more than 87 acres, including farm land and an area formerly zoned industrial, at a cost to Ashley of more than \$1.2 million. These investments allowed

**Every year Ashley recycles:** 65,000 tons of wood by-products. 300 tons of metal 45 tons of office paper. 3,000 light bulbs. 7,000 pounds of computer equipment. 18 trailers of plastic film. Over 400 trailers of corrugated cardboard. 100 tons of high density Styrofoam

**Sustainable Practices:** Wood as boiler fuel: Replaces 25 million cubic feet of natural gas. Clean burning natural gas is used for building heat and upholstery ovens. All of our finishes

and most of our adhesives are water based which allows us to clean with water instead of petroleum-based solvents. We have realized a 99.5% reduction in our waste stream since 1994. Used oil that is re-refined into new oil: 12,500 gallons per year.

**When "White" is Green:** Ashley paints its plant interiors white to save on energy costs. Ashley saves 40% on lighting energy and it makes a nicer work environment. Ashley has made an initial investment of over \$1 million in painting our new plants and additions, which will save on lighting energy costs forever.

**Trees:** Over 800 trees planted in community programs Over 1,000 trees and shrubs planted on the Arcadia campus. Tens of thousands of trees distributed for annual Arbor Day observance.

Energy Saving Projects: 350 solar light pipe devices have been installed to reduce lighting

requirements Lighting in plants has been upgraded to new energy efficient fluorescent lamps. Began use of occupancy sensors which turn lights off when not needed. Standard motors have been replaced with variable frequency drives which reduce air compressor energy usage. Plant roofs have been retrofitted with anti-reflective material and more insulation – reducing the amount of energy needed for heating and cooling

**Ashley's Green Fleet:** APU's (auxiliary power units/generator): decreases emissions and fuel consumption Truck engines burn one gallon per hour at idle; whereas an APU burns 1/10th gallon. Bio-diesel fuel is used when available. Equipment is U.S. EPA smartway certified. Our 2008 motors can return cleaner air to the environment than what they intake