

Types of Consumer Product Testing & Testing Capabilities:

As a CPSC recognized and accredited Third Party Testing lab, we follow the required testing methodology procedures to perform compliance testing in accordance with CPSIA guidelines. The various procedures for the item tested are listed below. The method for CPSIA compliance testing varies and may be found in the CFR (Code of Federal Regulation) or ASTM (American Society for Testing and Materials) procedures. These are some of the more relevant tests and procedures – including but not limited to:

- Lead in Children’s Metal Products/Jewelry – CPSC-CH-E1001-08
- Lead in Children’s Non-Metal Products – CPSC-CH-E1002-08
- Lead in Paint and Surface Coatings – CPSC-CH-E1003-09 and 16 CFR Part 1303
 - Phthalate Analysis – CPSIA Section 108(a) – CPSC-CH-C1001-09.3
 - BPA Analysis – ASTM D7065-06
 - Soluble Metals Analysis – ASTM F963-08
 - Toxics in Packaging Testing
 - Toy Safety Requirements – ASTM F963-08

Quality Programs & Accreditations

ATS maintains current standards and certifications to provide the highest degree of quality for our clients.

- ISO 9001
- ISO 17025 (A2LA)
- CPSC Accredited

- Small Part Testing – 16 CFR Part 1501 and ASTM F963-08
- Rattles & Pacifiers – 16 CFR Parts 1510 & 1511
- Mechanical Testing of Bicycle Helmets – 16 CFR Part 1203
- Full-Size/Non Full-Size Cribs – 16 CFR Parts 1508 & 1509
- Children’s Bunk Beds – 16 CFR Part 1513
- Flammability Testing – 16 CFR 1500.44
- Textile Flammability Testing – 16 CFR 1610 & 1615
- Toy Flammability Testing – ASTM F963-08

Applied Technical Services is also accredited to test to specific European toy safety requirements, such as EN 71 Part 1 – Mechanical & Physical Properties, EN 71 Part 2 – Flammability, and EN 71 Part 3 – Migration of Certain Elements.

Additionally, we are familiar with Canada Consumer Product Safety Act (CCPSA), and can test to various Health Canada testing requirements.



ATS, founded in 1967 and headquartered in Marietta, GA is one of North America’s leading consulting engineering firms with extensive testing and inspection capabilities delivering a combination of experience, professionalism and decisive responsiveness for our clients.



Consumer Product Testing



Consumer Product Testing

Applied Technical Services is a Consumer Product Safety Commission (CPSC) accredited lab testing consumer products, which include toys, childcare articles, children’s products, and non-children’s products for compliance with the Consumer Product Safety Improvement Act of 2008 (CPSIA). Since 1967 we have partnered with our customers to help meet consumer expectations, as well as all safety, regulatory, quality and performance standards. As a compliance testing partner, we support our customers in establishing a reasonable testing and certification program.

Our staff is highly knowledgeable with current compliance regulations, and can provide you with rapid response and quick testing turn-around times. Our ISO 9001 certification and ISO 17025 (A2LA) accredited quality assurance program meets the most stringent industry requirements.



*All accreditations are granted to certain disciplines operating within ATS. Each certification/affiliation or accreditation has a special defined scope. Please visit www.atslab.com or contact the ATS Quality Assurance Department at 1-888-287-5227 for further details.



Consumer Product Testing



Products Tested

Below is a list of some items our lab tests with regards to Consumer Product Testing. This list is not limited to these items, but serves as an example of some common products requiring CPSIA testing. Safety testing requirements vary by item. Please contact us to discuss your consumer products testing in further detail, and have us help you determine the applicable compliance regulations.

- Games
- Plush Toys
- Bibs
- Pacifiers
- Footwear
- Clothes
- Paints/Coatings
- Jewelry
- Furniture
- CDs/DVDs
- Playgrounds
- Cribs



Key areas of testing include the following:

- **Chemical testing** for presence of lead, heavy metals, phthalates, formaldehyde, and other restricted organic compounds. As stated by the CPSIA, these compounds and heavy metals are regulated in children's products.
- **Mechanical hazards testing** on children's toys and other items to mainly determine if small parts, sharp points, or sharp edges exist. Mechanical hazards testing may be necessary to ensure children's products are safe for their age group and that the toy does not present itself as a hazard.
- **Flammability testing** to demonstrate that products meet standard requirements of the CPSIA and Code of Federal Regulations.

Lead Testing

Lead is a toxic heavy metal used for years in the building and construction industry. It is used in batteries, solder, some metal alloys (e.g. pewter, brass, etc.), ceramic glazes, polyvinyl chloride (PVC), certain glasses, oil-based paints, and for pigments in paints. Like other heavy metals, lead



is a potent neurotoxin that accumulates in soft tissues and bone over time. Lead poisoning was even documented in ancient times in Greece, Rome, and China.

Lead poisoning damages the nervous system (especially in young children) and can cause blood and brain disorders, it has even been linked to learning disabilities in children at low levels. Lead poisoning typically results from ingestion of lead contaminated materials or lead based paint. Between 2006 and 2007 many children's toys made in China were recalled, primarily due to lead in paint and pigments in the plastics used to manufacture the products. The concern about lead exposure in children has brought about the passage of stricter legislation to reduce its use (the Consumer Product Safety Improvement Act of 2008).

Current legislation reduces the limit of lead allowed as follows:

- Paint or surface coatings to 90 parts per million (ppm), effective 8/14/09
- Surface coatings to 100 ppm, which applies to children's products, effective 8/14/11

Phthalate Testing

Phthalates are mainly used as plasticizers, substances added to plastics to increase their flexibility and durability. Phthalates are used in many products, such as glues, building materials, medical devices, vinyl materials, paint pigments, coatings, and children's toys.

Section 108(a) of the CPSIA specifies that as of February 10, 2009, "...it shall be unlawful for any person to manufacture for sale, offer for sale, distribute in commerce, or import into the United States any children's toys or childcare article that

contains concentrations of more than 0.1% of DEHP, DBP, or BBP and for any children's toy that can be placed in a child's mouth or any childcare article will not contain concentrations of more than 0.1% of phthalate compounds DINP, DIDP, and DnOP." California Proposition 65 also requires a warning label for products containing some of the specified phthalates above in addition to DNHP.

American Society for Testing and Materials (ASTM) F963-08

Section 106 of the CPSIA changes ASTM International's Standard Consumer Safety Specification for Toy Safety, ASTM F963-08 from a voluntary standard to a mandatory requirement. This applies to all products that are imported into the United States and that are intended for children 12 years of age and younger. Currently the CPSC does not require a certificate for ASTM F963-08; however, it will be required once the stay of enforcement is removed on 12/31/11. Within ASTM F963-08 there are several sections, which address the mechanical hazards testing of toys. The applicable testing is based on the toy's design. Key areas of testing and certification to ASTM F963-08 and the Code of Federal Regulation (CFR) include the following, but are not limited to:

- Soluble (Heavy) Metals Analysis
- Small Part Testing
- Sharp Point Testing
- Sharp Edge Testing
- Magnet Testing
- Strangulation Hazard Assessment
- Seam Testing
- Flammability Testing
- Product Labeling

When Quality is Non-Negotiable!

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