

Providing Sterilisation & Laboratory Services for the World's Most Innovative Healthcare Companies.

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ASTM Packaging Standards - Medistri

ASTM Packaging Standards

ASTM is one of the world's leading international quality organisations. The ASTM guidelines are an agreement between consumers, manufacturers, government agencies and scientists from over 140 countries on the implementation of packaging quality and testing requirements.

ASTM Packaging Standards are a set of standards developed by ASTM International, a voluntary standards development organization, that cover various aspects of packaging for different products, materials and applications. These standards provide guidance and methods for the evaluation and testing of the physical, mechanical, chemical and safety properties of packaging, as well as the design, development, integrity and performance of packaging systems.

Following the ASTM packaging standards is important for several reasons, such as:

- Ensuring the quality and safety of packaging materials and products, and preventing potential hazards or risks to consumers, workers or the environment.
- Enhancing the functionality and performance of packaging systems, and improving the protection, preservation and delivery of packaged goods.
- Facilitating the compatibility and interoperability of packaging systems with different products, materials, equipment and processes.
- Promoting the efficiency and sustainability of packaging systems, and reducing the waste, cost and environmental impact of packaging.
- Complying with the regulatory requirements and expectations of different markets, industries and authorities.

Medistri performs a series of tests that simulate the physical and environmental stresses that the packaging may encounter during handling, storage and transportation. These tests include:

- Temperature and humidity cycling: This test exposes the packaging to various temperature and humidity levels to evaluate the effects of climatic changes on the packaging materials and performance.
- Altitude testing: This test exposes the packaging to low pressure conditions to evaluate the effects of altitude changes on the packaging seals and integrity.
- Vibration testing: This test exposes the packaging to random or sinusoidal vibrations to evaluate the effects of road, rail, air or sea transportation on the packaging stability and durability.

- Shock testing: This test exposes the packaging to impact forces from drops, topples or horizontal impacts to evaluate the effects of rough handling on the packaging protection and strength.
- Compression testing: This test exposes the packaging to static or dynamic compression forces to evaluate the effects of stacking or crushing on the packaging deformation and resistance.

The tests are performed according to predefined schedules or cycles that represent different distribution modes or scenarios. The test schedules or cycles are based on historical data, field measurements or statistical analysis of the distribution environment. The test schedules or cycles are selected according to the product characteristics, distribution requirements and regulatory expectations.

At Medistri, we can validate your packaging according to ASTM D7386 and ASTM D4169:

ASTM D7386 is a standard practice for performance testing of packages for single parcel delivery systems. It provides a uniform basis for evaluating in a laboratory setting, the ability of shipping units to withstand the distribution environment encountered in single parcel delivery systems. It covers both standard and accelerated test schedules.

ASTM D4169 is a standard practice for performance testing of shipping containers and systems. It provides a uniform basis for evaluating in a laboratory setting, the ability of shipping units to withstand the distribution environment encountered in various modes of transportation. It covers both standard and accelerated test schedules.

At Medistri, we follow ASTM guidelines to perform the Sterile Barrier System Integrity Testing:

- Accelerated Ageing Tests according to ASTM F1908.
- Visual Inspection Tests according to ASTM F1886.
- Dye Migration Tests according to ASTM F1929 & F3039.
- Bubble Emission Tests according to ASTM F2096.
- Seal Tensile Strength Test according to ASTM F88.

Should you fully validate your packaging system or should you simply test one particular characteristic of your packaging, Medistri laboratory is accredited and highly experienced to work with the ASTM Packaging Standards.

 To learn more about Medistri's ASTM Packaging Standards, visit on our website at www.medistri.swiss or directly contact our team at contact@medistri.swiss.

- The Medistri Team

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