

INSULATED CONTAINER TESTING

PUTS MINDS AT EASE



Many people bring their own insulated flasks for drinks when they go out, the kind with an insulant (such as a vacuum) to slow the heat transfer between the contents of the inner container and the outer casing. Insulated containers vary considerably in prices and performances, and consumers often will compare the products in terms of temperature retention, spill-resistance, stability and durability, etc. before making a purchase decision.

Regions like the EU, China and Taiwan have introduced specifications for insulated containers. One of the most widely adopted is the European Standard, BS EN 12546 Part 1 (see table below). Aside from the physical parameters, heavy metals migrated from stainless steel compound, and plasticizers and unpleasant odor released from plastic caps can also be evaluated to make a thorough assessment of the overall safety of an insulated container.

BS EN 12546 Part 1 Insulated Containers for Domestic Use

Specification for vacuum ware, insulated flasks and jugs

Test Item	Test Performance
Pouring	No stains caused by spluttering shall occur when liquid is poured out of the insulated container.
Stability	At any level of filling from empty up to its nominal capacity, the insulated container shall not overbalance when placed on a 10°-inclined plane.
Heat Loss	Pre-heat the container for 5 min with 95°C hot water. Empty the container and immediately fill it again with 95°C hot water. Leave the container for 6 hours at 20°C, then check the water temperature.
Thermal Shock	Fill the container with 15°C water. Leave for 5 min, then empty and re-fill it with 95°C hot water, again for 5 min. Empty and check if the filler is intact.
Stopper Leakage Seal Leakage	No leakage or drop in water level shall occur after filling the container with water for a certain period of time.
Impact	The container shall not break after being made to drop from a certain height.
Handle	The handle shall not be damaged in the weight loading test.

STC offers tailored testing solutions to manufacturers, distributors and retailers of domestic insulated containers to ensure the products meet relevant quality and safety standards.

For more details, please contact our Chemical, Food and Pharmaceutical Division:

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