DOSSIER: Changes in ISTA-6-Amazon.com, testing procedures for parcel delivery & e-commerce

General ISTA testing ensures a uniform basis for the evaluation of packaging. As parcel delivery and e-commerce become more and more important, different test procedures are available.

A general simulation performance test is the ISTA 3A procedure, which covers packaged products for Parcel delivery system shipment (up to 70 kg).

In addition, the ISTA 6-series Member Performance Tests are protocols created by ISTA members to suit their own particular purposes and applications. Hereby, two ISTA-6-Amazon.com tests are developed by ISTA in cooperation with Amazon.com. Both test protocols are General Simulation Protocols:

- **ISTA-6-Amazon Over-Boxing**
- **ISTA-6-Amazon SIOC** (Ships in own container) – for Amazon.com Distribution System Shipment

**ISTA 6-Amazon.com-Over Boxing** is created to meet the Amazon.com requirements for products being placed in a master shipping box. This standard was written to test for e-commerce fulfillment for individual retail packaged-product weighing 70 pounds (31.75 kg) or less.

It is common for Amazon.com to place these items into a larger shipping container either by itself or with other individual retail packaged-products and then cushioned with dunnage.

Over Boxing challenges the products and its packaging to determine its ability to withstand the general damage-producing environment such as motions, forces and conditions of this transportation.

The biggest change in this project is for the compressive vibration sequence. The top load is no longer a required element of the random vibration test block. The over box is a static variable as the intent of this test is to understand the interactions of the products within the over box.

Ensuring adequate exterior package integrity should be the independent element evaluated by Amazon and should not be the burden of the vendor.

This change will help deliver greater consistency with testing done at various ISTA-recognized laboratories, such as IBE-BVI, by reducing false failures when over boxes collapse during testing.
Ships in Own Container (SIOC): packages that ship to an end customer without the need of additional packaging are classified as SIOC. Certified items should be capable of Shipping in Own Container (SIOC). Packages that ship SIOC may experience various levels of cosmetic damage as they move through distribution. Cosmetic damage such as dented corners, abrasions and dust is acceptable, as long as the inner product remains undamaged. The Program Participant and the Amazon Packaging Certification Lab, for instance IBE-BVI, determines the acceptable level of cosmetic damage. The key point here is to make sure that the product arrives in pristine condition to the customer.

Eight different types of packaged-products are defined in this project (type A through H). Type G & H were added this year to address specific handling practices and common challenges experienced by the product category of TV’s & Monitors. The wide variation in TV sizes create a packaged-product category which will benefit from having a testing sequence that addresses its specific needs and challenges. The specific testing sequences will help ensure that all TV’s are subjected to the same hazards found in the real world and to the hazards which this product type is most susceptible (i.e. rotational impacts, concentrated impact on the screen, etc.).

Other changes in ISTA-6-Amazon.com projects:

Clamp Testing - Two changes occurred for Horizontal Compression (clamping simulation):
1. Inclusion of a non-equivalent alternative for clamp testing using a compression machine.
2. Two MINIMUM compression force calculations/limitations are incorporated to account for TV’s being handled as individual items more frequently than other package types.

Compression Test Block Order - The order of testing sequences for vertical compression and clamping were changed to more closely align with packaging flow. Clamping simulation now occurs before vertical compression to account for packages being clamped coming off the truck at receipt prior to being stacked in the fulfillment center (FC) i.e. warehouse.

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Info and test requests: see our website