

## TESTS ARE ORGANIZED BY SERIES:

### 1 Series: Non-Simulation Integrity Performance Tests.

Challenge the strength and robustness of the product and package combination. Not designed to simulate environmental occurrences. Useful as screening tests, particularly when used as a consistent benchmark over time.

### 2 Series: Partial Simulation Performance Tests.

Tests with at least one element of 3 Series type General Simulation performance tests, such as atmospheric conditioning or mode-shaped random vibration, in addition to basic elements of a 1 Series type Non-Simulation Integrity test.

### 3 Series: General Simulation Performance Tests.

Designed to provide a laboratory simulation of the general damage-producing motions, forces, conditions, and sequences of transport environments. Applicable across broad sets of circumstances, such as a variety of vehicle types and routes, or a varying number of handling exposures. Characteristics will include simple shaped random vibration, different drop heights applied to the sample package, and/or atmospheric conditioning.

### 4 Series: Enhanced Simulation Performance Tests.

General Simulation tests with at least one element of Focused Simulation, such as test sequence or test conditions linked to actual known distribution. Project 4AB is currently the only protocol in this Series. 4AB is a web-based Enhanced Simulation Test Plan generator, with on-line access available at no charge to all ISTA members. Project 4AB closely ties the tests and sequence to a user-defined pattern of distribution, and includes a broad range of current and quantitative information on distribution environment hazards. See the Project 4AB section of the ISTA® website ([www.ista.org](http://www.ista.org)) for more details.

### 5 Series: Focused Simulation Guides.

Guides for the creation of laboratory simulations based on actual field-measured and observed hazards and levels. The 5-Series are not performance tests per se, but information and instructions related to establishment of user-defined Focused Simulation tests. Guide 5B for Temperature Controlled Packaging is currently the only document in this Series.

### 6 Series: Member Performance Tests.

Test protocols created by ISTA members to meet their particular purposes and applications. The tests may be completely original, or may be modifications or variations of ISTA Procedures or Projects or other published and accepted tests. ISTA reviews and approves these tests, but primary responsibility rests with the originating members.

### 7 Series: Development Tests.

These tests are used in the development of transport packages. They can be used to compare relative performance of two or more container designs, but are not intended to evaluate the protection afforded packaged-products.

## IMPORTANT

Procedures periodically receive corrections or revisions before the publish date of the next Resource Book. Please visit the ISTA® website at [www.ista.org](http://www.ista.org) for the most up-to-date procedures and projects.

Members receive free and complete online access to all Test Procedures.

1A and 3A are also offered in Chinese. Contact ISTA Headquarters to receive these versions.

## ISTA® PROCEDURES AND PROJECTS:

- 1A** Packaged-Products weighing 150 lb (68 kg) or Less
- 1B** Packaged-Products weighing Over 150 lb (68 kg)
- 1C** Extended Testing for Individual Packaged-Products weighing 150 lb (68 kg) or Less
- 1D** Extended Testing for Individual Packaged-Products weighing Over 150 lb (68 kg)
- 1E** Unitized Loads
- 1G** Packaged-Products weighing 150 lb (68 kg) or Less (Random Vibration)
- 1H** Packaged-Products weighing Over 150 lb (68 kg) (Random Vibration)
- 2A** Packaged-Products weighing 150 lb (68 kg) or Less
- 2B** Packaged-Products weighing Over 150 lb (68 kg)
- 2C** Furniture Packages
- 2D** Packaged-Products Considered Flat
- 2E** Packaged-Products Considered Elongated
- 2F** Performance Testing of Shipping Containers for LTL Shipment National Motor Freight Classification Item 180 NCC/LTL
- 3A** Packaged-Products for Parcel Delivery System Shipment weighing 70kg (150 lb) or Less
- 3E** Unitized Loads of Same Product
- 3F** Packaged Products for Distribution Center to Retail Outlet Shipment, 100 lb (45 kg) or Less
- 3H** Performance Test for Products or Packaged-Products in Mechanically Handled Bulk Transport Containers
- 4AB** Packaged-Products for Shipment in Known Distribution Channels
- 5B** Focused Simulation Guide for Thermal Performance Testing of Temperature Controlled Transport Packaging
- 6** Member Performance Tests - details on 6 series section.
- 7A** Project: Open Reusable Transport Containers for Loads of 60 lbs (27 kg) or Less and Unitized for Shipment on a Pallet
- 7B** Closed Reusable Transport Containers for Loads of 150 lb (68 kg) or Less
- 7C** Reusable Intermediate Bulk Containers
- 7D** Thermal Controlled Transport Packaging for Parcel Delivery System Shipment