# **Optimize your packaging waste** with Amazon's Frustration-Free packaging







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## 1. What is Amazon's Frustration-Free packaging?

The boom of e-commerce has implied an exponential increase of commercial shipping worldwide. For companies, whose success depends on the quality of these deliveries, protecting their goods during the distribution cycle has become a priority.

During a product's transportation and storage, the package is the only thing protecting the product. This is the reason why there is an entire industry built around packaging **research**, whose purpose is to find the right protection for goods.

In addition, there are new sensitive issues within the packaging industry, such as the growing concern for the **environment** and the waste that is generated.

The packaging industry - which is becoming increasingly advanced - provides assistance to companies who seek optimization through research. One of the most widespread and pioneering of these is Amazon's Frustration-Free system.

Amazon's **Frustration-Free** packaging is a new program whose purpose is to reduce packaging material to a minimum, always ensuring that the cargo is well protected.

Packages that comply with Amazon's Frustration-Free **standards** are 100% manufactured with recyclable materials and are easy to open. Furthermore, they have been designed in a way that makes it possible to ship the products inside their original package, eliminating the need for additional boxes.

This system is the result of an initiative by e-commerce giant Amazon, who received **criticism** from its customers on the matter: users would complain when receiving products that had been damaged during transport, and packages that were too big or hard to open.

Through its Frustration-Free program, Amazon aims to increase **customer sat-isfaction** in relation to packaging.

The company has already implemented the Frustration-Free program with some of its main sellers, managing to **eliminate 215,000 tons of packaging** and 360 million shipping boxes.

Now, Amazon intends to incorporate more companies who ship using its distribution system to this program. With this in mind, starting **August 1, 2019** it will require that sellers certify packages bigger than 8x14x8 inches (about 20x35.5x20 centimeters) and heavier than 20lb (approximately 9 kilograms) under its Frustration-Free packaging program.

> Participating in the program will imply that goods will be ready for safe shipping without the need for **additional packaging** by Amazon. This certification will also ensure that packages are recyclable and that they can be easily opened.

Moreover, the company offers **incentives** for those who get their products Frustration-Free certified between September 2018 and July 31, 2019.



## **Program Benefits**

Amazon's Frustration-Free program proposes a new packaging model with various standards, which offers many advantages:

- Taking part in the program implies less issues with package-related prep service fees in Amazon. If the products are certified under the Frustration-Free program, the company will not apply Amazon's additional preparation.
- Lower packaging costs. Unnecessary and excessive packaging characteristics will be eliminated, which means that sellers will incur lower expenses.

Over-boxing and overcomplicating packages to make them eye-catching is a thing of the past. From now on, customers, distribution companies and Amazon ask for a simple, sustainable packaging.

- Lower **transportation** costs: by fulfilling Amazon's new requirements, packages are better prepared for distribution. Fulfillment of the requirements of the Frustration-Free program will lead to smaller packages, thereby reducing transportation costs in turn.
- More satisfied customers. Amazon's Frustration-Free packaging is designed with customers in mind. This means that packages are easy to open and environmentally aware: they are manufactured with 100% recyclable materials and reduce waste.
- **Better protection** for shipped goods. The design of packages within the Frustration-Free program is laboratory-tested. This is why passing the required tests to be part of the Frustration-Free program implies safer goods.
- Better environmental conditions. Amazon proposes a system that reduces excess packaging and uses recyclable materials.

Passing the necessary tests to be a part of the Frustration-Free program implies greater safety for goods.

# 2. All you need to know about ISTA-6 and other procedures

Amazon is a member of **ISTA** (International Safe Transit Association), an organization whose purpose is to address the needs of packaging for transportation, focusing on protecting the cargo and making it sustainable.

This association establishes **safety** standards for the transportation of goods based on various criteria. In the case of ISTA-6 methods, work is carried out with transportation and distribution companies to accomplish procedures that ensure the safety of loads as per these companies' standards.

Working jointly with Amazon, ISTA has created **ISTA 6-Amazon.com** – a series of simulations to test how packages react to potential events that take place during shipping & handling, to guarantee the safety of the load.

Taking part of Amazon's Frustration-Free program will require these tests and trials to be performed in a **packaging laboratory** that is equipped for that purpose. In this regard, the machines of the <u>innAmazon</u> product line developed by Safe Load Testing Technologies meet all of the requirements to efficiently perform these tests.



## a) ISTA 6-Amazon.com

ISTA 6-Amazon.com testing procedures attempt to **simulate the conditions** experienced by a package during shipping & handling.

Through this method, Amazon intends to ensure that goods can be sent inside the seller's **own package**, without the need for other boxes or extra packaging to guarantee the safety of the load.

There are two ISTA 6-Amazon.com **protocols** that apply depending on whether the product being transported is Tier 1, Tier 2 or Tier 3: SIOC and Over Boxing. SIOC (ships in own container) applies to products contained within their own packages, while OB (Over Boxing) applies to the shipping of several retail products, where one or many products may be shipped in one same box.

On one hand, Tier 1 and Tier 2 loads must undergo simulations outlined in the **ISTA-6-Amazon.com (SIOC)** procedure. This protocol has been established by combining different factors in the form of data recorded during transportation processes, customer reviews and observations made by Amazon in its Fulfillment Center.

In order for a package to get certified, it will be required to pass a series of tests that prove that the package can withstand the **external hazards** that may exist during its road transportation. This set of tests is specifically designed for packaged boxes sent using Amazon's distribution network.

On the other hand, packages categorized as Tier 3 are to be certified as per the **ISTA 6-Amazon.com Over-Boxing** testing method. These tests are performed on products transported using an over box – in other words, a larger box in addition to the first package (which may contain air bags or other material for cushioning of the product during transportation).

### ISTA 6-Amazon.com-SIOC

Procedures within Amazon SIOC are divided into six types of packaged products (type A through type H). This division depends on:

- **1.**Shipping method (delivery of packaged products or LTL delivery of packaged products).
- 2. Handling method (standard handling or palletized handling).
- **3.**Weight (under 50lbs, 50-100 lbs, over 100 lbs).
- **4.**Packaged product category: special categories G-H for televisions and monitors

Safe Load TT offers a set of machines to simulate the testing procedures outlined by the standard, as well as a wide range of products to meet many customer needs:

package type	innPress	innClamp	innWave	innDrop	innShock
Туре А			~	~	
Туре В	<b>~</b>	×	<b>~</b>	<b>~</b>	
Туре С	<b>~</b>	×	×	×	<b>~</b>
Type D	<b>~</b>	×	×	×	
Туре Е	<b>~</b>	×	×	×	<b>~</b>
Type F	<b>~</b>		×	×	~
Type G	<b>~</b>	×	×	×	<b>~</b>
Туре Н	~	×	<b>~</b>	×	~



### 6-AMAZON.COM-Over Boxing

The procedures that compose the 6-Amazon.com-Over Boxing standard are simulation tests for e-commerce. As opposed to products prepared to be shipped in their own containers, products within this category are individual retail products weighing 70 pounds (32kg) or less which are placed inside a master shipping container (Over Box) whether by themselves with cushioning material (air bags, etc.) or with multiple retail products individually packaged for shipping to Amazon's end customer through a parcel service.

This test evaluates the package's and/or product's ability to withstand general damages caused by motions, forces, conditions and sequences resulting from their environment - whether for the master container or the shipping package.

Other characteristics:

- e-Commerce fulfillment is defined as any packaged product configuration where the retail individual packaged product is not intended to ship in its own shipping container
- Single or multiple retail packaged products are placed into a corrugated shipping container ("over-box") with dunnage for shipment to an end customer from an e-retailer or distribution center.
- Single item or multiple item order.



## b) Other ISTA standards

In addition to ISTA-6, ISTA has other testing procedures in place to ensure the safety of a load during shipping.

- The **ISTA-1** series proposes the simplest protocols to protect a load, without including environmental considerations.
- The **ISTA-2** series measures the behavior of a load under specific atmospheric conditions or vibrations based on the type of transport.
- The **ISTA-3** series is the most widespread, since it simulates the conditions that a load is subject to during distribution on different types of transports.
- The **ISTA-7** series studies how the packaging reacts to different temperatures or moisture levels.

As for the ISTA-6 series, work is performed jointly with members of the association (such as Amazon) to set forth protocols that allow for the optimization of packages, with sights on working with these companies.

This has led to collaborations with other companies (FedEx and Sam's Club), which, in addition to the Amazon series, have established the Project 6-SAM-SCLUB, 6-FEDEX-A and 6-FEDEX-B programs, to name a few.



## **3. How to obtain Amazon's Frustration-Free certification for your packages**

Amazon asks that company apply innovation and research to their packages, and outlines the specific steps that an organization may take to improve its packages and secure their merchandize.

In order to be a part of the Frustration-Free program, Amazon requires that providers perform the **ISTA-6** test mentioned above.

The membership deadline will be **August 1, 2019**. However, Amazon wishes to encourage companies to become members before that date, and for this, they are to submit the results of the test.

Amazon's Frustration-Free certification will work through the **Vendor Central** system that Amazon makes available to sellers.

However, packages will be required to have passed the **tests** outlined in ISTA-6 before submissions are sent.

# The simulations and tests proposed by ISTA-6 are to be carried out by an ISTA-certified laboratory, and submissions may only be sent once the tests have been passed.

## You may find ISTA-certified laboratories in this page.

This submission must include a report that certifies that the package complies with the standards outlined in the test, in addition to a subscription form.

To know the status of your certification (whether it has been approved or denied), Amazon will provide sellers with a tool in the Vendor Central.

Amazon continuously monitors for damages suffered by packages. If it notices that packages do not comply with the Frustration-Free or other applicable standards, it will add additional packaging to the shipments and penalize the seller for each unit that does not meet the standards.

## 4. Safe Load TT's innAmazon

<u>Safe Load Testing Technologies</u> has been working in line with Amazon and ISTA guidelines (of which it is a member) to provide solutions to companies that need to get their packages certified under Amazon's Frustration-Free program.

With this in mind, we have created the <u>innAmazon</u> product line – a set of machines that perform the procedures outlined in ISTA 6-Amazon.com-SIOC and ISTA 6-Amazon.com-Over-Boxing.

> The machines that compose Safe Load TT's innAmazon product line are designed to guarantee the performance of the testing procedures required by Amazon to join the Frustration-Free program.

This set is composed of a total of **five machines** whose simulations are designed to reproduce the Amazon ISTA-6 standards. In addition, these machines also comply with the CE mark safety standards.

In order to attain high-precision results that are close to reality, tests using Safe Load TT's innAmazon machines may be performed inside environmental chambers that simulate the temperatures or moisture that a load may be subject to.



## X innPress

This is a simulation machine that tests a package's resistance to compression and to the Creep test.

This machines allows for the selection of different testing modes for the simulation, such as constant rate, press and hold and press and release.

### **TECHNICAL SPECIFICATIONS**

- > Electrical machine.
- > Maximum compression force up to 200kN.
- > Stroke up to 2400 mm.
- > Testing table in different sizes.
- > Variable compression speed: 200 mm/min.
- > Load accuracy: <0.5%.
- > Position accuracy: <0.1 mm.
- > Testing data in real time.
- > Can be installed inside climatic chamber.
- > Intuitive controller.
- > Automatic report generator.
- > Different testing modes preset:
  - · Constant rate.
  - $\cdot$  Apply and hold.
  - $\cdot$  Apply and release.







## III innClamp

Measures the protective capabilities of packages when exposed to horizontal pressures and vertical motions during their automatic storage.

In order to allow for more precise tests, the machine is available in several models depending on the sizes of the load to be transported (which may range from 400 mm / 15.75 inches to 2000 mm / 78.74 inches.



### **TECHNICAL SPECIFICATIONS**

- > Electrical machine.
- > Package dimension from 500 up to 2000 mm.
- > Clamping plate height 1.000 mm.
- > Clamping force up to 10.000 N.
- > Load weight up to 500 kg.
- > Load accuracy: ±5%.
- > Vertical working stroke up to 500 mm.
- > Consistent rate movement to apply compression.
- > Touch screen controller.
- > Intuitive use.



## III innClamp

## >I innShock

Simulates the horizontal shocks and impacts that may affect the stability and safety of goods during shipping & handling.

### **TECHNICAL SPECIFICATIONS**

- > Electrical machine.
- > Impact velocity up to 2.5 m/s.
- > Testing load up to 1500 kg.
- > Test platform different sizes.
- > Precision guides for smooth displacement.
- > 10° inclined plane.
- > Touch screen controller.
- > Intuitive controller.







Reproduces the vertical vibrations experienced by the load during shipping & handling, whether by road, rail, air or sea.

This machine may also include Safe Load Testing Technologies' patented <u>Pitch &</u> <u>Roll</u> technology, which simulates the pitch and roll motions that take place during shipping & handling. This allows the machine to attain high-precision results.



### **TECHNICAL SPECIFICATIONS**

- > Servo-hydraulic vibration system.
- > Actuator dynamic force up to 50 KN.
- > Stroke up to 200 mm.
- > Frequency range up to 300 Hz.
- > 1-G Air dumpers for static load support.
- > Test table sizes: 800x800, 1000x1000, 1500x1500 mm2.
- > Vibration isolation: steel seismic mass.
- > Able to reproduce recorded PSD.
- > Standard PSD for testing included.
- > Intuitive control software by **Real Vibrations**.
- > Ready to install Safeload TT P&R Module.



Wave

## **⊽** innDrop

Performs drops and rotational impacts that may affect the products during shipping & handling. The machine is designed to simulate flat, edge and corner falls, and different options are available based on the size and weight of the loads to undergo the simulation.

### **TECHNICAL SPECIFICATIONS**

- > Electrical machine.
- > 4 different designs depending packaging size.
- > Drop height up to 2 m.
- > Maximum load up 1500 kg.
- > Steel impact surface.
- > Hydraulic dumpers.
- > Possibility of control the drop orientation.
- > Intuitive controller.
- > Touch screen controller.





## 5. Why choose Safe Load?

Safe Load Testing Technologies has a **background** of over 20 years designing and manufacturing transportation simulation machines.

Constantly focusing on offering **innovation** and excellence in the packaging industry, we introduce unique solutions in the market.

There are several reasons why Safe Load Testing Technologies is the best option to help you prepare for your Amazon Frustration-Free certification:

• Safe Load's innAmazon is designed to perform the ISTA-6 tests outlined by Amazon for its Frustration-Free program.

This is why, in this age of change and transition, our set of <u>innAmazon</u> machines offers solutions to companies working through Amazon, laboratories and brand-owners, to have their laboratories certified by ISTA and perform the testing procedures to self-certify their packaging.

• The machines designed by Safe Load accommodate high levels of **per-sonalization**.

We can design and use ad hoc machines based on the **needs** of each company. As an example, the innDrop machine can be tailored to the type of load that is to be used in the simulation.

• We ensure that machines have an **intuitive use**.

At Safe Load TT we focus on proactively listening to the needs of each client, in order to offer machines that are simple to operate and also allow for process automation. This also implies that our machines are easy to maintain and need only occasional maintenance.

• We offer **training** throughout the entire process.

At Safe Load TT we want to turn transportation simulation into a **simple** process that offers solutions.

Nowadays, there are only a highly limited number of companies worldwide that have the necessary **know-how** to design and implement a turnkey transportation simulation laboratory project, and Safe Load TT is one of them.

### Innovation is in our DNA.

At Safe Load we stand out due to our commitment to stay one step ahead in the packaging research industry.

As an example, we hold the **patent** to a <u>vertical vibration + pitch/roll</u> system. This simulation machine, which is one of a kind in the world, allows for testing with a high level of precision when compared to what is actually experienced during the transportation of goods.

If the future of transportation simulation is the creation of equipment that provides increasingly **precise** results, at Safe Load TT we work every day to offer machines that attain this goal.



Leading companies such as ITENE, Duo Plast and Newton Research have already relied on us to implement their own packaging **research laboratories**.

If you want to have your own laboratory, have it ISTA-certified, take part of **Amazon's Frustration-Free program** and certify your own packages, **get in touch with us** and we will start working together to guide you step by step and help you acquire the necessary equipment to test and optimize your packages. We can also help you create your own laboratory with the machines that are better suited to your needs, and we will offer you training sessions so that you can self-certify your products. Safe Load TT's machines can also be sold separately to complete and improve your laboratory.

# Do you want to know more about our machines or buy yours?

Contact Safe Load Testing Technologies and we will help you improve your packaging!

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