

C-TPAT – acronym for Customs Trade Partnership Against Terrorism

From the website www.cbp.gov

Seal Requirements for Manufacturers

C-TPAT importers, carriers and manufacturers who wish to qualify for expedited processing and other related benefits under the U.S./Mexico FAST initiative will be required to adhere to the following procedures, protocols and standards with regards to the use of high security seals.

MANUFACTURER:

The manufacturer shall be responsible for the sealed container/trailer until such a time as the carrier assumes control.

Seals are to be affixed at manufacturer point of origin (loading). Seals will be of the high security type as per ISO guidelines (ISO/PSA 17712, Freight Containers-Mechanical Seals), adopted May 2003.

Establish verifiable security systems for cargo storage and handling facilities and container yards in order to prevent the improper manipulation and transportation or handling of cargo and/or containers/trailers.

Ensure a system is in place to verify seal numbers, weights and quantity of cargo received, when practical.

Safeguard the use of seals and maintain a log of seal numbers issued and used.

Ensure that all manifests and/or bills of lading or other documentation (including electronic data transmissions) submitted for cargo to be shipped are complete and includes all pertinent seal information.

Seal Integrity Responsibilities.

Seals are to be affixed by a responsible, designated representative of the manufacturing entity (NOTE: A responsible, designated representative is defined as an employee who maintains a position of trust (i.e. security personnel) within the business and has received appropriate instruction and training in the proper use and application of high security seals).

Access to seals will be strictly controlled by the responsible party and shall be issued at random in order to avoid seals being affixed in sequential order.

Seals shall be stored in a secure location (locked cabinet, safe, etc.) until such a time as their use is warranted.

Access to such secure locations must be restricted to those parties responsible for the inventory and affixing of seals.

A log must be maintained in order to account for all seals under the control of the manufacturer/importer. NOTE: A standardized log is currently under development. In the

interim, any entity responsible for the sealing of cargo should use and maintain an accounting system of its own design.

CARRIER/DRAYAGE:

Upon receipt of container/trailer, ensure that all seal information is true and correct as reflected on manifests, bills of lading or other documentation related to the movement of cargo.

Establish verifiable security systems for cargo storage and handling facilities, container yards and conveyances operated by the carrier to prevent the improper manipulation and transportation of cargo and /or containers/trailers.

Establish procedures for reporting any discrepancies or anomalies related to seal integrity.

Seal Integrity Responsibilities.

Seals will be of the high security type as per ISO guidelines (ISO/PSA 17712, Freight Containers-Mechanical Seals), adopted May 2003.

All seals that are removed from a cargo container/trailer for legitimate intermediate examinations (customs inspection, conveyance damage surveys, law enforcement activity, etc.) must be placed in the container just inside the doors, in plain view, before a new seal is affixed to the container.

Establish a system for annotating and reporting any changes due to legitimate intermediate examination purposes as described above.

Seals are to be affixed by a responsible, designated representative of the carrier. **NOTE:** A responsible, designated representative is defined as an employee who maintains a position of trust (i.e. security personnel) within the business and has received appropriate instruction and training in the proper use and application of high security seals.

Access to seals will be strictly controlled by the responsible party and shall be issued at random in order to avoid seals being affixed in sequential order.

Seals shall be stored in a secure location (locked cabinet, safe, etc.) until such a time as their use is warranted.

Access to such secure locations must be restricted to those parties responsible for the inventory and affixing of seals.

A log must be maintained in order to account for all seals under the control of the carrier. **NOTE:** A standardized log is currently under development. In the interim, any entity responsible for the sealing of cargo should use and maintain an accounting system of their of their own design.

Establish a system to ensure verification of seal numbers and types and that all pertinent seal information is reflected on all manifests, bills of lading or other documentation (including electronic data transmissions) related to the movement of cargo.

IMPORTER:

Ensure that all related parties are aware of security guidelines and procedures as they relate to the use of seals and seal integrity.

Establish a system to ensure all related parties/business partners adhere to established security guidelines and procedures relating to the use of seals and seal integrity.

Establish procedures for reporting any seal discrepancies or anomalies to CBP.

From the website www.ISMASecurity.com (International Seal Manufacturers Association)

ISO 17712 Affects You

In September 2010, International Standard 17712, Mechanical seals (ISO 17712) replaced the Publicly Available Specification 17712 (ISO/PAS 17712). 17712 is now a fully-fledged ISO International Standard.

ISO 17712 addresses all types of security seals usable on maritime containers. Since many other industries use the same seals, members of those industries also may choose to adopt ISO 17712.

Compliance with ISO 17712 requires independent confirmation in three areas:

1. Physical testing to determine a seal's classification for physical strength.
2. Process auditing of supplier security-related business processes.
3. Physical testing that earns a "Pass" grade for evidence of tampering. Please note that the tamper test grade is not required until 1st March 2012.

At the present time and due to enhanced Customs security requirements market focus is concentrated on seals classified as 17712 high security "H". Bolt and cable seals are the traditional types of "H" strong barrier seals.

Suppliers must assure that both their product and their security-related business procedures conform to the standard. Suppliers must be able to produce on request proper independent test and audit reports - commonly referred to as certificates of compliance.

Buyers that need 17712-compliant seals must be vigilant in their purchasing. They should be able to obtain independent written certification from a supplier that its product and processes meet or exceed the hurdles of ISO 17712.

What is ISO 17712?

International Standard ISO 17712, Freight containers - Mechanical seals, published in September 2010, is the third generation of 17712. The first generation was a Publicly Available Specification (PAS) published in 2003, the second generation was a revision to ISO/PAS 17712 published in 2006. The generations are cumulative except for some fine-tuning of earlier work.

The International Organization for Standardization (ISO) permits its technical committees to draft and vote on Publicly Available Specifications (PAS) as, in effect, a kind of interim International Standard. A PAS is faster to approve than a formal standard, but it has a limited shelf-life.

The first generation, ISO Technical Committee (TC) 104, Freight Containers, formed Working Group 8 (WG8), Mechanical Seals late in 2002. Industry and government experts concluded that an international standard on mechanical security seals would enhance post-9/11 cargo security. Using ISO's PAS procedures, ISO/PAS 17712 was finished quickly. The PAS focused on the physical parameters of three classes or levels of seal barrier strength: indicative ("I"), security ("S"), and high security ("H"). The barrier strength of a seal was and still is measured with four tests: impact, shear, bend and tensile strength. The test values that distinguished between "I", "S" and "H" classes reflected numbers in use by major customs authorities.

The quality of seals used in international trade improved as trade-related programs encouraged or required use of ISO-compliant "H" seals. Two of the earliest programs were the US Customs-Trade Partnership Against Terrorism (C-TPAT) and the World Customs Organization's "Framework of Standards to Secure and Facilitate Global Trade."

ISO/PAS 17712:2003's narrow scope reflected the time-urgency of industry stakeholders. It was clear that the seal suppliers' security-related business practises were at least as important as the physical strength of a seal. Seal manufacturers and distributors with immature or careless security-related management practises could effectively compromise the security of the best physical seal before it was shipped out of the door.

The major thrust of second-generation activities produced Annex A (normative), "Seal manufacturers' security-related practises." The purpose of the annex is to raise the quality of security-related practises in the mechanical seal industry and assure a buyer that its supplier conforms to industry best practises. Annex A defines more than two dozen required practices, such as maintenance of quality assurance programs (ISO 9001), facility risk assessment, seven year data retention programs for all seals, and access control to production and storage areas. The annex requires a report of a successful audit (often referred to as a certificate) from an independent auditor accredited under ISO-sanctioned procedures. After a successful international ballot, ISO published the revised PAS 17712 in 2006.

The revision made an important linkage of two features:

- Compliant seals must show a mark to indicate their classification - "H" for high security, "S" for security and "I" for indicative.

- Only manufacturers certified as compliant with the normative annex may put grade marks on seals.

The linkage means that ISO-compliant seals can come only from ISO compliant sources.

The third generation changes published in ISO 17712: 2010 addressed technical issues, added testing for tamper evidence and established an 18 month transition buffer after publication for critical issues.

Most of the technical changes that affect accredited testing labs, which must have ISO 17712 included in their scope of competence: the changes clarified test fixture designs and added specificity to the test procedures. Another technical change, reflecting user experience, established an 18mm minimum widest diameter for bolt seals. ISO/PAS 17712 had addressed seal diameter as a functional requirement and the industry norm tended to be 17mm. The 18 month transition buffer applied to the 18mm requirement to accommodate manufacturer's tooling requirements and particularly to allow seal inventory adjustment throughout bolt seal supply chains.

Testing for tamper evidence is the most important change since addition of the normative Annex A. Customs regulators in the European Commission approached ISO and expressed strong interest in tamper testing and vetting of security seals. ISO TC 104 leaders decided that WG8 would work with the EC to address their concerns. All parties shared a goal: to facilitate maintenance of a common global regime for security seals.

ISO 17712 gives testing labs unusual flexibility in finalizing their test procedures for evidence of tampering. Tamper attempts must leave detectable evidence of tampering in each of three tests; three successes earn a "Pass" grade but an "undetectable" result on any test generates a "Fail" grade for the seal. All classes of seals - "I", "S" and "H" - must earn "Pass" grades to qualify as 17712 compliant.

Tamper evident testing in ISO 17712 is a compromise to accommodate two valid but conflicting goals: providing specific common test procedures and not providing a public "cookbook" of ways to defeat security seals. The compromise presents a challenge to conscientious testing laboratories.

Annex B (normative) requires an 18 month transition before the tamper evident testing and the 18mm minimum widest diameter become required of all compliant seals. The transition is critical for tamper evident testing, it allows time for suppliers to re-examine and enhance anti-tamper features; for testing labs to define and refine their test methods; for lab accreditation agencies to learn the issues sufficiently to vet labs; and for security seal inventory adjustment throughout supply chains.

Beginning 1 March 2012, all ISO 17712 compliant seals **must** be certified as tamper evident.

You may purchase copies of ISO 17712: 2010 from ISO itself or from any national standards bodies, such as AFNOR (France), ANSI (US), or BSI (UK).