

Security Information

Everything you need to know about ISO 17712:2010

Launch: ISO 17712:2010 published on 1st September 2010 replaces Publicly Available Specification - ISO/PAS 17712:2006

Scope: ISO 17712:2010 establishes uniform procedures for the classification and acceptance of **Mechanical Freight Container Seals**. Seals that conform to ISO 17712:2010 are suitable for other applications, such as bulk railcars or truck trailers used in cross-border and domestic operations.

Focus: The ISO 17712:2010 focuses on –
- the **Physical Parameters** of three levels of **Seal Strength**: Indicative, Security & High Security.
- Seal Manufacturers' **Security-Related Practices**

Contents: The main parts in the ISO 17712:2010 document are - Seal Requirements, Tests for Seal Classification, Tests for Evidence of Tampering, Annex A - Seal Manufacturers' Security-Related Practices & Annex B - Transition times for Requirements of 4.4.3 & Clause 6.

4 Seal Requirements: Seals shall be **identified by unique marks** (e.g. your logo or company name) and **uniquely numbered**. The identity of the **manufacturer** must be on every Seal (e.g. Unisto). Seals **must show a mark to indicate their grade** "H" High Security, "S" Security or "I" for Indicative. Only Manufacturers **certified as compliant with Annex A (Security-Related Practices)** are allowed to put grade marks on Seals that have met the specific requirements for each classification level.

4.4.3 To **preclude the simple removal of a bolt seal** by pulling the pin head or locking body through a worn container hasp, the **minimum diameter** (or minimum widest cross-dimension) **for the Metal Components of a bolt seal shall be 18 mm**.

4.4.3.1 As described in Appendix B clause B2 the **18 mm minimum diameter shall become effective not before March 2012**. Unisto Hi-Genius Bolt Seal already fulfils this point.

Seal Classification: **Indicative seal (I)** can easily be broken by hand or by using a simple snipping tool or shear. **Security seal (S)** provides limited resistance to intrusion and requires lightweight tools for removal. **High Security seal (H)** - High security seals generally must be removed with quality bolt cutters or cable cutters.
All seals require inspection to indicate whether tampering has occurred or entry has been attempted.

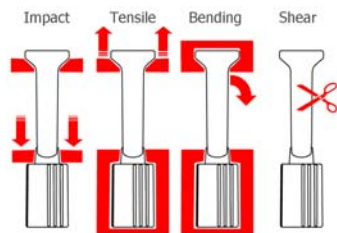
In order to classify Security Seals they have to be tested -

Tensile test: A pull test shall be conducted to determine the strength of a seal's locking mechanism.

Shear test: A shear test shall be conducted to test the ability of a seal to withstand cutting with shearing blades, as might be implemented with bolt cutters.

Bending test: The bending test is conducted to determine the resistance of a seal to failure under bending loads.

Impact test: The impact test shall be conducted to determine the resistance to an impact load at 18 °C and -27 °C. The Impact test is conducted in three phases. Each phase requires a 5 time drop of force on the bolt, for a total of fifteen times.



- Testing is to be done **every 2 years** and therefore a certificate is only valid 2 years

- Seals shall be **tested as sold**.

5 Test Lab In order to comply with ISO 17712, the **Testing Lab must be certified according to ISO/IEC 17025** and be **accredited for the 4 tests** – tensile, shear, bending and impact. Other labs are not allowed to issue a certificate.

6 Testing for Evidence of Tampering The testing methods for this subject are still not defined and therefore the **effective date for certification of conformance with Clause 6 is 18 months after the publication of ISO 17712 (March 2012)**. We will keep you informed.

Annex A Seal Manufacturers' Security-Related Practise - It is increasingly clear that **Security-Related Practices are as important as the physical strength of a seal**. In order to **demonstrate conformance** to this annex, manufacturers shall have a timely **audit** completed by an **independent process certification provider specifically accredited to audit conformance with ISO 17712**.

Annex B Transition times for Requirements of 4.4.3 & Clause 6 (Tampering Tests) - This will come **into effect 18 months after publication dated 1. September 2010 (=March 2012)** – we will keep you informed !

Certificates Unisto fulfils all requirements according to ISO 17712:2010 and can provide all necessary certificates – (please always ask your respectable seal supplier for these or equivalent documents).



Annex A



Seal Test Certificate

ISMA Unisto is also **member of ISMA** – International Seal Manufacturer's Association. For further information please visit the following website - www.ismasecurity.com