



BREAKTHROUGH ONE-KEY LOCK TECHNOLOGY

## 2.0 Padlock Testing Performance Summary

November 28, 2011

**ASTM Grade rating 1-6 being 1 the lowest and 6 the highest.**

**Corrosion Resistance – Salt Spray Test:** Hang padlock in a salt spray chamber.

**Grade 6** = 240 hours in chamber, padlock still functional.

**Shackle Strength – Cutting Test:** Use two steel blades and apply force slowly along vertical centerline of padlock shackle.

**Grade 5** = Withstands minimum of 6,975 lbs. with padlock still secure

**Impact Resistance – Shock Test:** Secure the shackle and drop a weight onto the body of the padlock.

**Grade 6** = 13.2 lb. weight dropped from 3.28 ft. five times without padlock coming apart.

**Drill Resistance – Lock Plug Pull Test:** Drill and insert screw into keyway of lock and try and pull lock out of padlock body.

**Grade 6** = Withstands a minimum of 2,700 lbs. with padlock still secure

**Weather Resistance – Wet Freezing Environment Test:** Spray padlock for 1 minute with water from 18”, drain padlock for 2 minutes, place padlock in chamber until padlock reaches chamber temperature.

**Grade 6** = -45 degrees F, padlock functions properly.



### **Testing Specification: ASTM F 883-04**

This specification covers environmental, functional, operational, and security requirements for padlocks. Included are function descriptions, cycle tests, operational tests, environmental tests, forcing tests, and surreptitious entry tests.

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