

Kurt Stochlia, Vice President  
ICC Evaluation Service, Inc  
Los Angeles Business/Regional Office  
5360 Workman Mill Road  
Whittier, CA 90601

May 14, 2008

Subject: Public Comment on AC118 for May 2008 hearing

Dear Mr. Stochlia:

The undersigned screw fastener report holders would like to formally provide public comments to your letter dated April 28, 2008 with the Subject, "Proposed Revision to the Acceptance Criteria for Tapping Screw Fasteners, Subject AC118-0508-R1 (KS)".

There are three (3) subjects which warrant follow-up comments:

1. ICC-ES proposed a sample size of ten (10) for the qualification tests. However, pursuant to our phone conference on May 8, 2008 you agreed with our recommended sample size of five (5) from our letter dated March 27, 2008.

2. The inclusion of the Drill-Drive Test (Test #6 in your proposed draft) as a third party laboratory required qualification test concerns us as we do not see this as a safety-related critical test. The Drill-Drive Test measures the time for the screw to install in the fastened material. This is an installability evaluation that has no structural safety relevance. Our recommendation remains consistent that the Drill-Drive Test only be provided as a quality control test at the manufacturing facility as has been previously accepted in AC118 report submittals.

3. The inclusion of the Plating / Coating Thickness Test (Test #11 in your proposed draft) as a third party laboratory required qualification test is redundant as the Salt-Spray Test (Test #4 in your proposed draft) is already required. The Salt-Spray test is a direct evaluation of the screw fastener corrosion resistance. The purpose of any plating/coating is corrosion resistance, therefore the Salt-Spray Test adequately demonstrates to ICC-ES that the screws are appropriately plated / coated and the Plating / Coating Thickness Test is redundant. Our recommendation remains consistent that the Plating / Coating Thickness Test only be provided as a quality control test at the manufacturing facility, as was previously done in AC118 report submittals. There is no justification for requiring Plating / Coating Thickness Tests as a third party laboratory qualification test. During our phone conversation you agreed in principle with this recommendation.

Based upon these three follow-up recommendations, we have attached the proposed Table 1 for inclusion in AC118.

We look forward to working with ICC-ES in order to create a reasonable and useful acceptance criteria for the evaluation of screw fasteners. We welcome an opportunity to continue our dialogue on AC118 prior to the hearing. Please contact Drew Liechti at (918) 294-5805 and he will organize a conference call with the group at a mutually convenient date and time.

Thank you for your consideration.

Regards,

Andrew T. Liechti, P.E.  
Technical Services Engineer  
**Hilti, Inc.**

Martin Kehoe  
**Grabber Construction**  
Products Division, JWA

Jeff Ellis, P.E., S.E.  
Sr. Engineering Project Manager  
**Simpson Strong-Tie Co., Inc.**

Gregg Melvin  
Senior Applications Engineer  
**Elco® Construction Products, LLC**

Michael Gong, Ph.D.  
Senior Project Engineer  
**ITW Buildex**

cc Peter Bahlo and Brian Gerber



**TABLE 1—SAMPLE SIZE FOR THIRD PARTY QUALIFICATION AND MANUFACTURING LOCATION TESTS SPECIFIED IN SCREW STANDARDS REFERENCED IN SECTION 3.1 OF THIS CRITERIA**

<b>CHARACTERISTIC</b>	<b>THIRD PARTY QUALIFICATION TEST SAMPLE SIZE</b>	<b>MANUFACTURING LOCATION TEST SAMPLE SIZE<sup>1</sup></b>
Proper Seating Test Section 6 2 1.1 of ASTM C 954; Section 12 6 3 of ASTM C1002	-	5 screws per lot per ASTM C 954 Section 9
Assembly Tension Section 6 2.1.2 of ASTM C954	5	5 screws per lot Per ASTM C 954 Section 9
Case Depth	5	5 screws per 250,000 screws per ASTM C 1513 Section 10
Chemistry <sup>2</sup>	-	-
Corrosion resistance (salt-spray testing)	5	5 screws per 250 000 per ASTM C 1513 Section 10
Drill Capacity	-	5 screws per 250 000 per ASTM C 1513 Section 10
Drill Drive	-	5 screws per 250 000 per ASTM C 1513 Section 10
Drill Hole Size Section 5 4 of SAE J78	-	5 screws per 250 000 per ASTM C 1513 Section 10
Ductility	5	5 screws per 250,000 per ASTM C 1513 Section 10
Hardness	5 <sup>3</sup>	5 screws per 250 000 per ASTM C 1513 Section 10
Hydrogen embrittlement	-	5 screws per 250 000 per ASTM C 1513 Section 10
Plating/coating thickness <sup>4</sup>	-	5 screws per 250 000 per ASTM C 1513 Section 10
Spin out (Section 6 1 of ASTM C954)	-	5 screws per lot per ASTM C 954 Section 9
Torsional Strength	5	5 screws per 250 000 per ASTM C 1513 Section 10
Dimensional Checks <sup>5</sup>	5	-

<sup>1</sup> A minimum of 5 manufacturing location tests should be provided to ICC-ES for lot of fasteners tested per Section 4 0. For the purposes of on-going quality control as described in Section 5 3, tests shall be completed per the referenced ASTM standard.

<sup>2</sup> A certified copy of the material's chemical or product analysis, which is traceable to the lot of test specimens shall be furnished.

<sup>3</sup> Hardness ranges listed in Section 5 1.2 of ASTM C 954 are not for the final product. This test is not required for screws to be recognized for ASTM C 954 applications.

<sup>4</sup> If the plating/coating thickness test is performed as a qualification test in addition to the salt-spray test, the manufacturing location test that is used may be either the salt-spray test or the plating/coating thickness test.

<sup>5</sup> The average of five measurements of same dimension should be evaluated to manufacturer's drawing dimensions and tolerances.