## ASTM Standard Test Method F1940 Process Control Verification to Prevent Hydrogen Embrittlement—A Demonstration of the Application Guidelines

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An ASTM F16.93 task group of industry experts was established to investigate the use of an alternate process control method using the incremental step loading (ISL) technique per ASTM F1624. The result of this task group was Standard Test Method F1940. This method allows the quantitative statistical evaluation of finishing processes for damage from internal hydrogen embrittlement (IHE). A revision of this document has been approved by ASTM F16 and incorporates a non-mandatory application guideline targeting the general fastener plating and coating industry. The guideline was designed to be used as a template for the application of ASTM F1940 and should serve as a checklist for using the ISL technique for process control verification. To demonstrate the testing procedures and sampling schedule described in the guideline, a joint testing program was undertaken with a metal finishing company. A complete discussion of the application guidelines and the results generated when the sampling schedule was applied to a zinc barrel plating line will be presented.

## For more information, contact:

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