

**Volume 03.02, August 2007**  
**Corrosion of Metals; Wear and Erosion**

**Standards and Related Materials Contained in this Volume:**

[B117-07 Standard Practice for Operating Salt Spray \(Fog\) Apparatus - \(View Full Text\)](#)  
[C876-91\(1999\) Standard Test Method for Half-Cell Potentials of Uncoated Reinforcing Steel in Concrete - \(View Full Text\)](#)  
[G1-03 Standard Practice for Preparing, Cleaning, and Evaluating Corrosion Test Specimens - \(View Full Text\)](#)  
[G3-89\(2004\) Standard Practice for Conventions Applicable to Electrochemical Measurements in Corrosion Testing - \(View Full Text\)](#)  
[G4-01 Standard Guide for Conducting Corrosion Tests in Field Applications - \(View Full Text\)](#)  
[G5-94\(2004\) Standard Reference Test Method for Making Potentiostatic and Potentiodynamic Anodic Polarization Measurements - \(View Full Text\)](#)  
[G15-07 Standard Terminology Relating to Corrosion and Corrosion Testing - \(View Full Text\)](#)  
[G16-95\(2004\) Standard Guide for Applying Statistics to Analysis of Corrosion Data - \(View Full Text\)](#)  
[G28-02 Standard Test Methods of Detecting Susceptibility to Intergranular Corrosion in Wrought, Nickel-Rich, Chromium-Bearing Alloys - \(View Full Text\)](#)  
[G30-97\(2003\) Standard Practice for Making and Using U-Bend Stress-Corrosion Test Specimens - \(View Full Text\)](#)  
[G31-72\(2004\) Standard Practice for Laboratory Immersion Corrosion Testing of Metals - \(View Full Text\)](#)  
[G32-06 Standard Test Method for Cavitation Erosion Using Vibratory Apparatus - \(View Full Text\)](#)  
[G33-99\(2004\) Standard Practice for Recording Data from Atmospheric Corrosion Tests of Metallic-Coated Steel Specimens - \(View Full Text\)](#)  
[G34-01\(2007\) Standard Test Method for Exfoliation Corrosion Susceptibility in 2XXX and 7XXX Series Aluminum Alloys \(EXCO Test\) - \(View Full Text\)](#)  
[G35-98\(2004\) Standard Practice for Determining the Susceptibility of Stainless Steels and Related Nickel-Chromium-Iron Alloys to Stress-Corrosion Cracking in Polythionic Acids - \(View Full Text\)](#)  
[G36-94\(2006\) Standard Practice for Evaluating Stress-Corrosion-Cracking Resistance of Metals and Alloys in a Boiling Magnesium Chloride Solution - \(View Full Text\)](#)  
[G37-98\(2004\) Standard Practice for Use of Mattsson's Solution of pH 7.2 to Evaluate the Stress- Corrosion Cracking Susceptibility of Copper-Zinc Alloys - \(View Full Text\)](#)  
[G38-01\(2007\) Standard Practice for Making and Using C-Ring Stress-Corrosion Test Specimens - \(View Full Text\)](#)  
[G39-99\(2005\) Standard Practice for Preparation and Use of Bent-Beam Stress-Corrosion Test Specimens - \(View Full Text\)](#)  
[G40-05 Standard Terminology Relating to Wear and Erosion - \(View Full Text\)](#)  
[G41-90\(2006\) Standard Practice for Determining Cracking Susceptibility of Metals Exposed Under Stress to a Hot Salt Environment - \(View Full Text\)](#)  
[G44-99\(2005\) Standard Practice for Exposure of Metals and Alloys by Alternate Immersion in Neutral 3.5% Sodium Chloride Solution - \(View Full Text\)](#)  
[G46-94\(2005\) Standard Guide for Examination and Evaluation of Pitting Corrosion - \(View Full Text\)](#)

[G47-98\(2004\) Standard Test Method for Determining Susceptibility to Stress-Corrosion Cracking of 2XXX and 7XXX Aluminum Alloy Products - \(View Full Text\)](#)

[G48-03 Standard Test Methods for Pitting and Crevice Corrosion Resistance of Stainless Steels and Related Alloys by Use of Ferric Chloride Solution - \(View Full Text\)](#)

[G49-85\(2005\) Standard Practice for Preparation and Use of Direct Tension Stress-Corrosion Test Specimens - \(View Full Text\)](#)

[G50-76\(2003\) Standard Practice for Conducting Atmospheric Corrosion Tests on Metals - \(View Full Text\)](#)

[G51-95\(2005\) Standard Test Method for Measuring pH of Soil for Use in Corrosion Testing - \(View Full Text\)](#)

[G52-00\(2006\) Standard Practice for Exposing and Evaluating Metals and Alloys in Surface Seawater - \(View Full Text\)](#)

[G56-82\(2005\) Standard Test Method for Abrasiveness of Ink-Impregnated Fabric Printer Ribbons - \(View Full Text\)](#)

[G57-06 Standard Test Method for Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method - \(View Full Text\)](#)

[G58-85\(2005\) Standard Practice for Preparation of Stress-Corrosion Test Specimens for Weldments - \(View Full Text\)](#)

[G59-97\(2003\) Standard Test Method for Conducting Potentiodynamic Polarization Resistance Measurements - \(View Full Text\)](#)

[G60-01 Standard Practice for Conducting Cyclic Humidity Exposures - \(View Full Text\)](#)

[G61-86\(2003\)e1 Standard Test Method for Conducting Cyclic Potentiodynamic Polarization Measurements for Localized Corrosion Susceptibility of Iron-, Nickel-, or Cobalt-Based Alloys - \(View Full Text\)](#)

[G64-99\(2005\) Standard Classification of Resistance to Stress-Corrosion Cracking of Heat-Treatable Aluminum Alloys - \(View Full Text\)](#)

[G65-04 Standard Test Method for Measuring Abrasion Using the Dry Sand/Rubber Wheel Apparatus - \(View Full Text\)](#)

[G66-99\(2005\)e1 Standard Test Method for Visual Assessment of Exfoliation Corrosion Susceptibility of 5XXX Series Aluminum Alloys \(ASSET Test\) - \(View Full Text\)](#)

[G67-04 Standard Test Method for Determining the Susceptibility to Intergranular Corrosion of 5XXX Series Aluminum Alloys by Mass Loss After Exposure to Nitric Acid \(NAMLT Test\) - \(View Full Text\)](#)

[G69-97\(2003\) Standard Test Method for Measurement of Corrosion Potentials of Aluminum Alloys - \(View Full Text\)](#)

[G71-81\(2003\) Standard Guide for Conducting and Evaluating Galvanic Corrosion Tests in Electrolytes - \(View Full Text\)](#)

[G73-04 Standard Practice for Liquid Impingement Erosion Testing - \(View Full Text\)](#)

[G75-01 Standard Test Method for Determination of Slurry Abrasivity \(Miller Number\) and Slurry Abrasion Response of Materials \(SAR Number\) - \(View Full Text\)](#)

[G76-05 Standard Test Method for Conducting Erosion Tests by Solid Particle Impingement Using Gas Jets - \(View Full Text\)](#)

[G77-05e1 Standard Test Method for Ranking Resistance of Materials to Sliding Wear Using Block-on-Ring Wear Test - \(View Full Text\)](#)

[G78-01\(2007\) Standard Guide for Crevice Corrosion Testing of Iron-Base and Nickel-Base Stainless Alloys in Seawater and Other Chloride-Containing Aqueous Environments - \(View Full Text\)](#)

[G81-97a\(2002\)e1 Standard Test Method for Jaw Crusher Gouging Abrasion Test -](#)

[\(View Full Text\)](#)  
[G82-98\(2003\) Standard Guide for Development and Use of a Galvanic Series for Predicting Galvanic Corrosion Performance - \(View Full Text\)](#)  
[G84-89\(2005\) Standard Practice for Measurement of Time-of-Wetness on Surfaces Exposed to Wetting Conditions as in Atmospheric Corrosion Testing - \(View Full Text\)](#)  
[G85-02e1 Standard Practice for Modified Salt Spray \(Fog\) Testing - \(View Full Text\)](#)  
[G87-02\(2007\) Standard Practice for Conducting Moist SO<sub>2</sub> Tests - \(View Full Text\)](#)  
[G91-97\(2004\) Standard Practice for Monitoring Atmospheric SO<sub>2</sub> Using the Sulfation Plate Technique - \(View Full Text\)](#)  
[G92-86\(2003\) Standard Practice for Characterization of Atmospheric Test Sites - \(View Full Text\)](#)  
[G96-90\(2001\)e1 Standard Guide for On-Line Monitoring of Corrosion in Plant Equipment \(Electrical and Electrochemical Methods\) - \(View Full Text\)](#)  
[G97-97\(2002\)e1 Standard Test Method for Laboratory Evaluation of Magnesium Sacrificial Anode Test Specimens for Underground Applications - \(View Full Text\)](#)  
[G98-02 Standard Test Method for Galling Resistance of Materials - \(View Full Text\)](#)  
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[G100-89\(2004\) Standard Test Method for Conducting Cyclic Galvanostaircase Polarization - \(View Full Text\)](#)  
[G101-04 Standard Guide for Estimating the Atmospheric Corrosion Resistance of Low-Alloy Steels - \(View Full Text\)](#)  
[G102-89\(2004\)e1 Standard Practice for Calculation of Corrosion Rates and Related Information from Electrochemical Measurements - \(View Full Text\)](#)  
[G103-97\(2005\) Standard Practice for Evaluating Stress-Corrosion Cracking Resistance of Low Copper 7XXX Series Al-Zn-Mg-Cu Alloys in Boiling 6% Sodium Chloride Solution - \(View Full Text\)](#)  
[G105-02 Standard Test Method for Conducting Wet Sand/Rubber Wheel Abrasion Tests - \(View Full Text\)](#)  
[G106-89\(2004\) Standard Practice for Verification of Algorithm and Equipment for Electrochemical Impedance Measurements - \(View Full Text\)](#)  
[G107-95\(2002\) Standard Guide for Formats for Collection and Compilation of Corrosion Data for Metals for Computerized Database Input - \(View Full Text\)](#)  
[G108-94\(2004\)e1 Standard Test Method for Electrochemical Reactivation \(EPR\) for Detecting Sensitization of AISI Type 304 and 304L Stainless Steels - \(View Full Text\)](#)  
[G109-99a\(2005\) Standard Test Method for Determining the Effects of Chemical Admixtures on the Corrosion of Embedded Steel Reinforcement in Concrete Exposed to Chloride Environments - \(View Full Text\)](#)  
[G110-92\(2003\)e1 Standard Practice for Evaluating Intergranular Corrosion Resistance of Heat Treatable Aluminum Alloys by Immersion in Sodium Chloride + Hydrogen Peroxide Solution - \(View Full Text\)](#)  
[G111-97\(2006\) Standard Guide for Corrosion Tests in High Temperature or High Pressure Environment, or Both - \(View Full Text\)](#)  
[G112-92\(2003\) Standard Guide for Conducting Exfoliation Corrosion Tests in Aluminum Alloys - \(View Full Text\)](#)  
[G115-04 Standard Guide for Measuring and Reporting Friction Coefficients - \(View Full Text\)](#)  
[G116-99\(2004\) Standard Practice for Conducting Wire-on-Bolt Test for Atmospheric Galvanic Corrosion - \(View Full Text\)](#)  
[G117-02 Standard Guide for Calculating and Reporting Measures of Precision Using](#)

[Data from Interlaboratory Wear or Erosion Tests - \(View Full Text\)](#)

[G118-02 Standard Guide for Recommended Format of Wear Test Data Suitable for Databases - \(View Full Text\)](#)

[G119-04 Standard Guide for Determining Synergism Between Wear and Corrosion - \(View Full Text\)](#)

[G123-00\(2005\) Standard Test Method for Evaluating Stress-Corrosion Cracking of Stainless Alloys with Different Nickel Content in Boiling Acidified Sodium Chloride Solution - \(View Full Text\)](#)

[G129-00\(2006\) Standard Practice for Slow Strain Rate Testing to Evaluate the Susceptibility of Metallic Materials to Environmentally Assisted Cracking - \(View Full Text\)](#)

[G132-96\(2001\) Standard Test Method for Pin Abrasion Testing - \(View Full Text\)](#)

[G133-05 Standard Test Method for Linearly Reciprocating Ball-on-Flat Sliding Wear - \(View Full Text\)](#)

[G134-95\(2006\) Standard Test Method for Erosion of Solid Materials by a Cavitating Liquid Jet - \(View Full Text\)](#)

[G135-95\(2007\) Standard Guide for Computerized Exchange of Corrosion Data for Metals - \(View Full Text\)](#)

[G137-97\(2003\) Standard Test Method for Ranking Resistance of Plastic Materials to Sliding Wear Using a Block-On-Ring Configuration - \(View Full Text\)](#)

[G139-05 Standard Test Method for Determining Stress-Corrosion Cracking Resistance of Heat-Treatable Aluminum Alloy Products Using Breaking Load Method - \(View Full Text\)](#)

[G140-02 Standard Test Method for Determining Atmospheric Chloride Deposition Rate by Wet Candle Method - \(View Full Text\)](#)

[G142-98\(2004\) Standard Test Method for Determination of Susceptibility of Metals to Embrittlement in Hydrogen Containing Environments at High Pressure, High Temperature, or Both - \(View Full Text\)](#)

[G143-03\(2004\) Standard Test Method for Measurement of Web/Roller Friction Characteristics - \(View Full Text\)](#)

[G146-01\(2007\) Standard Practice for Evaluation of Disbonding of Bimetallic Stainless Alloy/Steel Plate for Use in High-Pressure, High-Temperature Refinery Hydrogen Service - \(View Full Text\)](#)

[G148-97\(2003\) Standard Practice for Evaluation of Hydrogen Uptake, Permeation, and Transport in Metals by an Electrochemical Technique - \(View Full Text\)](#)

[G150-99\(2004\) Standard Test Method for Electrochemical Critical Pitting Temperature Testing of Stainless Steels - \(View Full Text\)](#)

[G157-98\(2005\) Standard Guide for Evaluating the Corrosion Properties of Wrought Iron- and Nickel-Based Corrosion Resistant Alloys for the Chemical Process Industries - \(View Full Text\)](#)

[G158-98\(2004\) Standard Guide for Three Methods of Assessing Buried Steel Tanks - \(View Full Text\)](#)

[G161-00\(2006\) Standard Guide for Corrosion-Related Failure Analysis - \(View Full Text\)](#)

[G162-99\(2004\) Standard Practice for Conducting and Evaluating Laboratory Corrosions Tests in Soils - \(View Full Text\)](#)

[G163-99\(2004\) Standard Guide for Digital Data Acquisition in Wear and Friction Measurements - \(View Full Text\)](#)

[G164-99\(2004\) Standard Test Method for Determination of Surface Lubrication on Flexible Webs - \(View Full Text\)](#)

[G165-99\(2005\) Standard Practice for Determining Rail-to-Earth Resistance - \(View Full Text\)](#)  
[G168-00\(2006\) Standard Practice for Making and Using Precracked Double Beam Stress Corrosion Specimens - \(View Full Text\)](#)  
[G170-06 Standard Guide for Evaluating and Qualifying Oilfield and Refinery Corrosion Inhibitors in the Laboratory - \(View Full Text\)](#)  
[G171-03 Standard Test Method for Scratch Hardness of Materials Using a Diamond Stylus - \(View Full Text\)](#)  
[G174-04 Standard Test Method for Measuring Abrasion Resistance of Materials by Abrasive Loop Contact - \(View Full Text\)](#)  
[G176-03 Standard Test Method for Ranking Resistance of Plastics to Sliding Wear using Block-on-Ring Wear Test—Cumulative Wear Method - \(View Full Text\)](#)  
[G180-04 Standard Test Method for Initial Screening of Corrosion Inhibiting Admixtures for Steel in Concrete - \(View Full Text\)](#)  
[G181-04 Standard Practice for Conducting Friction Tests of Piston Ring and Cylinder Liner Materials Under Lubricated Conditions - \(View Full Text\)](#)  
[G182-06 Standard Test Method for Determination of the Breakaway Friction Characteristics of Rolling Element Bearings - \(View Full Text\)](#)  
[G184-06 Standard Practice for Evaluating and Qualifying Oil Field and Refinery Corrosion Inhibitors Using Rotating Cage - \(View Full Text\)](#)  
[G185-06 Standard Practice for Evaluating and Qualifying Oil Field and Refinery Corrosion Inhibitors Using the Rotating Cylinder Electrode - \(View Full Text\)](#)  
[G186-05 Standard Test Method for Determining Whether Gas-Leak-Detector Fluid Solutions Can Cause Stress Corrosion Cracking of Brass Alloys - \(View Full Text\)](#)  
[G187-05 Standard Test Method for Measurement of Soil Resistivity Using the Two-Electrode Soil Box Method - \(View Full Text\)](#)  
[G188-05 Standard Specification for Leak Detector Solutions Intended for Use on Brasses and Other Copper Alloys - \(View Full Text\)](#)  
[G189-07 Standard Guide for Laboratory Simulation of Corrosion Under Insulation - \(View Full Text\)](#)  
[G190-06 Standard Guide for Developing and Selecting Wear Tests - \(View Full Text\)](#)  
[R0006- Condensed Metric Practice Guide for Corrosion \(This is not an ASTM Publication\) - \(View Full Text\)](#)

[SI Quick Reference Guide: International System of Units \(SI\) - \*The Modern Metric System\* - \(View Full Text\)](#)

### **Withdrawn Standards**

G2M Standard Test Method for Corrosion Testing of Products of Zirconium, Hafnium, and Their Alloys in Water at 633°K or in Steam at 673°K [Metric] (Withdrawn 2005)  
No Replacement

G79 Standard Practice for Evaluation of Metals Exposed to Carburization Environments (Withdrawn 2005) No Replacement

G83 Standard Test Method for Wear Testing with a Crossed-Cylinder Apparatus (Withdrawn 2005) No Replacement

G149 Standard Practice for Conducting the Washer Test for Atmospheric Galvanic Corrosion (Withdrawn 2004) No Replacement