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腐蚀实验标准参考手册

Corrosion Testing Standard Guideline

2017-V1.0



No.	标准编号 Standard Nr.	标准名称 Standard Name
1	JB/T 7901-1999	金属材料实验室 均匀腐蚀全浸试验方法 Metals materials – Uniform corrosion – Methods of laboratory immersion testing
2	ASTM G31-12a/NACE TM 0169	金属材料实验室均匀腐蚀全浸试验方法 Laboratory Immersion Corrosion Testing of Metals
3	GB/T 19291-2003	金属和合金的腐蚀 腐蚀试验一般原则 Corrosion of metals and alloys--General principles for corrosion testing
4	GB/T 16545-2015	金属和合金的腐蚀 腐蚀试样上腐蚀产物清除 Corrosion of metals and alloys—Removal of corrosion products from corrosion test specimens
5	JB/T 6073 -1992	金属覆盖层 实验室全浸腐蚀试验 Metals materials surface– Uniform corrosion– Methods of laboratory immersion testing
6	ASTM G1-03(2011)	腐蚀试样的制备、清洁处理和评定用标准实施规范 Standard Practice for Preparing, Cleaning, and Evaluating Corrosion Test Specimens
7	ASTM G111-1997(2013)	高温或高压或高温高压环境中的腐蚀试验 Standard Guide for Corrosion Tests in High Temperature or High Pressure Environment, or Both
8	ASTM G44-1999(2013)	金属及合金在 3.5%氯化钠中性溶液中交替浸渍的标准实施规程 Standard Practice for Exposure of Metals and Metal products by Alternate Immersion in Neutral 3.5% Sodium Chloride Solution
9	YY 0149-2006	医用不锈钢耐腐蚀性 Medical instruments of stainless steel—Test methods of corrosion resistance
10	ASTM G109-2007(2013)	测定添加剂对混凝土中钢筋在氯化物环境下腐蚀的标准试验方法 Standard Test Method for Determining Effects of Chemical Admixtures on Corrosion of Embedded Steel Reinforcement in Concrete Exposed to Chloride Environments

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11	TB/T 2375-1993	铁路用耐候钢周期浸润腐蚀试验方法 Cycle Corrosion Test of Weathering Steel in Railway
12	GB/T 19746-2005	金属和合金的腐蚀盐溶液周浸试验 Corrosion of Metals and alloys-Cycle Corrosion Test in Salt Solution
13	GB/T 4334-2008	金属和合金的腐蚀 不锈钢晶间腐蚀试验方法 Corrosion of Metals and alloys—Test methods for intergranular corrosion of stainless steels
14	GB/T 4334.6-2015	不锈钢 5%硫酸腐蚀试验方法 Method of 5 percent sulfuric acid test for stainless steels
15	GB/T 15260-2016	镍基合金晶间腐蚀试验方法 Nickel-based alloys—Determination of resistance to intergranular corrosion
16	CB/T 3949-2001	船用不锈钢焊接接头晶间腐蚀试验方法 Method of intergranular corrosion test of welding joint of stainless steels for hull structure
17	ASTM G28-02(2015)	锻造高镍铬轴承合金晶间腐蚀敏感性的检查用标准试验方法 Standard Test Methods for Detecting Susceptibility to Intergranular Corrosion in Wrought, Nickel-Rich, Chromium-Bearing Alloys
18	GB/T 7998-2005	铝合金晶间腐蚀测定方法 Test method for intergranular corrosion of aluminium alloy
19	ASTM G67 -13	用接触硝酸环境之后的重量损失来测定 5XXX 系列铝合金晶间腐蚀敏感性的标准试验方法(NAMLT 试验) 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)
20	ASTM A262 -15	奥氏体不锈钢晶间腐蚀敏感性的检测规程 Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels

No.	标准编号 Standard Nr.	标准名称 Standard Name
21	ASTM A923 -14	ASTM A923-2014 奥氏体-铁素体双相体不锈钢金属间不良化合相的标准试验方法 Standard Test Methods for Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels
22	GB/T 18590-2001	金属和合金的腐蚀 点蚀评定方法 Corrosion of metals and metal products—Evaluation of pitting corrosion
23	GB/T 17899-1999	不锈钢点蚀电位测量方法 Method of pitting potential measurement for stainless steels
24	YY/T 1074-2002	外科植入物 不锈钢产品点蚀电位 Implants for surgery—Measuring method for pitting corrosion potential on stainless products
25	ASTM G46-1994(2013)	点蚀检验和评定的标准指南 Standard Guide for Examination and Evaluation of Pitting Corrosion
26	ASTM G48-11(2015)	不锈钢及有关合金三氯化铁点蚀和缝隙腐蚀标准试验方法 Standard Test Methods for Pitting and Crevice Corrosion Resistance of Stainless Steels and Related Alloys by Use of Ferric Chloride Solution
27	ASTM G150-2013	临界点蚀温度的电化学标准试验方法 Standard Test Method for Electrochemical Critical Pitting Temperature Testing of Stainless Steels
28	ASTM G66-99(2013)	5XXX 系列铝合金的剥落腐蚀敏感性的外观评定的试验方法(ASSET 试验) Standard Test Method for Visual Assessment of Exfoliation Corrosion Susceptibility of 5XXX Series Aluminum Alloys (ASSET Test)
29	GB/T 10127-2002	不锈钢三氯化铁缝隙腐蚀试验方法 Stainless steels—Method of electrochemical test for crevice corrosion
30	GB/T 13671-1992	不锈钢缝隙腐蚀电化学试验方法 Stainless steels—Method of electrochemical test for crevice corrosion

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31	GB/T 15748-2013	船用金属材料电偶腐蚀试验方法 The method of galvanic corrosion test for metallic ship materials
32	YB/T 5362-2006	不锈钢在沸腾氯化镁溶液中应力腐蚀试验方法 Test method for stress corrosion-cracking resistance of stainless steels in a boiling magnesium chloride solution
33	YB/T 5344-2006	铁-铬-镍合金在高温水中应力腐蚀试验方法 Fe-Cr-Ni alloys-stress corrosion test in high temperature water
34	GB/T 15970.1-1995	金属和合金的腐蚀 应力腐蚀试验 第 1 部分：试验方法总则 Corrosion of metals and metal products—Stress corrosion testing—Part 1:General guidance on testing procedures
35	GB/T 15970.2-2000	金属和合金的腐蚀 应力腐蚀试验 第 2 部分：弯梁试样的制备和应用 Corrosion of metals and metal products—Stress corrosion testing—Part 2: Preparation and use of bent-beam specimens
36	GB/T 15970.3-1995	金属和合金的腐蚀 应力腐蚀试验 第 3 部分：U 型弯曲试样的制备和应用 Corrosion of metals and metal products—Stress corrosion testing—Part 3: Preparation and use of U-bend specimens
37	GB/T 15970.4-2000	金属和合金的腐蚀 应力腐蚀试验 第 4 部分：单轴加载拉伸试样的制备和应用 Corrosion of metals and metal products—Stress corrosion testing—Part 4: Preparation and use of uniaxially loaded tension specimens
38	GB/T 15970.5-1998	金属和合金的腐蚀 应力腐蚀试验 第 5 部分：C 型环试样的制备和应用 Corrosion of metals and metal products—Stress corrosion testing—Part 5: Preparation and use of C-ring specimens
39	GB/T	金属和合金的腐蚀 应力腐蚀试验 第 6 部分：恒载荷或恒位移下预裂纹试样

No.	标准编号 Standard Nr.	标准名称 Standard Name
	15970.6-2007	的制备和应用 Corrosion of metals and metal products—Stress corrosion testing—Part 6: Preparation and use of pre-cracked specimens for tests under constant load or constant displacement
40	GB/T 15970.7-2000	金属和合金的腐蚀 应力腐蚀试验 第 7 部分：慢应变速率试验 Corrosion of metals and metal products—Stress corrosion testing—Part 7: Slow strain rate testing
41	GB/T 15970.8-2005	金属和合金的腐蚀 应力腐蚀试验 第 8 部分：焊接试样的制备和应用 Corrosion of metals and metal products—Stress corrosion testing—Part 8: Preparation and use of specimens to evaluate weldments
42	GB/T 15970.9-2007	金属和合金的腐蚀 应力腐蚀试验 第 9 部分：渐增式载荷或渐增式位移下的预裂纹试样的制备和应用 Corrosion of metals and metal products—Stress corrosion testing—Part 9: Preparation and use of pre-cracked specimens for tests under rising load or rising displacement
43	NACE TM0177-2016	硫化氢环境中硫化物应力腐蚀开裂和应力腐蚀开裂实验室试验方法 Laboratory Testing of Metals for Resistance to Sulfide Stress Cracking and Stress Corrosion Cracking in H ₂ S Environments
44	ASTM G35-1998(2015)	确定不锈钢及镍-铬-铁合金在连多硫酸中的应力腐蚀开裂敏感性的实验方法 Standard Practice for Determining the Susceptibility of Stainless Steels and Related Nickel-Chromium-Iron Alloys to Stress-Corrosion Cracking in Polythionic Acids
45	ASTM G47-1998(2011)	测定高强度铝合金制品应力腐蚀断裂敏感性的标准试验方法 Standard Test Method for Determining Susceptibility to Stress-Corrosion Cracking of 2XXX and 7XXX Aluminum Alloy Products

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46	ASTM G36-1994(2013)	金属及其合金在沸腾氯化镁溶液中应力腐蚀试验方法 Standard Practice for Evaluating Stress-Corrosion-Cracking Resistance of Metals and Metal products in a Boiling Magnesium Chloride Solution
47	NACE TM 0284 - 2016	管道、压力容器抗氢致开裂钢性能的试验方法 Evaluattion of Pipeline and Pressure Vessel Steels for Resisttance to Hydrogen-Induced Cracking
48	GB/T 8650-2015	管线钢和压力容器钢抗氢致开裂评定方法 Evaluation of pipeline and pressure vessel steels for resistance to hydrogen-induced cracking
49	ASTM G3-14	腐蚀电化学测量的常规方法 Standard Practice for Conventions Applicable to Electrochemical Measurements in Corrosion Testing
50	ASTM G5-14	恒电位和动电阳极极化测试方法 Standard Reference Test Method for Making Potentiostatic and Potentiodynamic Anodic Polarization Measurements
51	ASTM G59-1997(2014)	动电位极化电阻测量的标准试验方法 Standard Test Method for Conducting Potentiodynamic Polarization Resistance Measurements
52	ASTM G61-1986(2014)	铁镍钴基合金的局部腐蚀敏感性的循环动电位极化的标准试验方法 Standard Test Method for Conducting Cyclic Potentiodynamic Polarization Measurements for Localized Corrosion Susceptibility of Iron-, Nickel-, or Cobalt-Based Alloy
53	ASTM G71-1981(2014)	电解液中电偶腐蚀试验的标准指南 Standard Guide for Conducting and Evaluating Galvanic Corrosion Tests in Electrolytes
54	ASTM G106-1989(2015)	电化学阻抗测量试验方法 Standard Practice for Verification of Algorithm and Equipment for Electrochemical Impedance Measurements
55	ASTM G148-1997(2011)	用电化学技术评价金属中氢吸收、渗透和传输的标准操作规程 Standard Practice for Evaluation of Hydrogen Uptake, Permeation, and Transport in Metals by an Electrochemical Technique

No.	标准编号 Standard Nr.	标准名称 Standard Name
56	ASTM G199-09(2014)	电化学噪声测量标准指南 Standard Guide for Electrochemical Noise Measurement
57	GB/T 21246-2007	埋地钢质管道阴极保护参数测量方法 Measurement method for cathodic protection parameters of buried steel pipelines
58	GB/T 17848-1999	牺牲阳极电化学性能试验方法 Test methods for electrochemical properties of sacrificial anodes
59	ASTM B117-2016	人造气氛腐蚀试验 Standard Practice for Operating Salt Spray (Fog) Apparatus
60	ASTM G162-2099(2010)	进行和评价实验室土壤腐蚀试验的标准实施规程 Standard Practice for Conducting and Evaluating Laboratory Corrosion Tests in Soils
61	ASTM G57-2006	用温纳四电极法测量土壤电阻率的标准试验方法 Standard Test Method for Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method
62	ASTM G187-12a	用双电极土壤箱法测量土壤电阻率的标准试验方法 Standard Test Method for Measurement of Soil Resistivity Using the Two-Electrode Soil Box Method
63	ASTMG200-2009 (2014)	土壤氧化还原电位(ORP)测量的标准试验方法 Standard Test Method for Measurement of Oxidation-Reduction Potential (ORP) of Soil
64	ASTM G51-1995(2005)	测量腐蚀试验用土壤 pH 值的测试方法 Standard Test Method for Measuring pH of Soil for Use in Corrosion Testing
65	GB/T 10125-2012	人造气氛腐蚀试验盐雾试验 Corrosion tests in artificial atmospheres—Salt spray tests
66	SY/T 0037-2012	管道防腐层阴极剥离试验方法 Test methods for cathodic disbanding of pipeline coatings
67	ASTM G8-1996(2010)	管道涂层阴极剥离的标准试验方法 Standard Test Methods for Cathodic Disbonding of Pipeline Coatings

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68	GB/T 18175-2014	水处理剂缓蚀性能的测定-旋转挂片法 Determination of corrosion inhibition performance of water treatment agents—Rotation specimen method
69	SY/T 5273-2014	油田采出水用缓蚀剂性能评价方法 Technical specifications and evaluating methods of corrosion-inhibitors for oilfield produced water inhibitors for oilfield produced water
70	ASTM G170-06(2012)	实验室中对油田和精炼厂腐蚀抑制剂的评测评价指南 Standard guide for evaluation and qualifying oilfield and refinery corrosion inhibitors in the laboratory
71	ASTM G185-06(2016)	用旋转圆柱电极评价油田和炼厂缓蚀剂的标准规程 Standard Practice for Evaluating and Qualifying Oil Field and Refinery Corrosion Inhibitors Using the Rotating Cylinder Electrode
72	ASTM D1308-02(2013)	家用化学品对透明和着色有机面漆影响的试验方法 Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
73	ASTM D4541-09	用便携式附着力测试仪测定涂层拉脱强度的标准试验方法 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers
74	ASTM D3363-05(2011)	铅笔试验法测定涂膜硬度的标准试验方法 Standard Test Method for Film Hardness by Pencil Test
75	GB/T 1771-2007	色漆和清漆 耐中性盐雾性能的测定 Paints and varnishes— Determination of resistance to neutral salt spray(fog)
76	GB/T 10125-2012	人造气氛腐蚀试验 盐雾试验 Corrosion tests in artificial atmospheres—Salt spray tests
77	ASTM G12-07(2013)	钢制管道涂层膜厚度的无损测量用标准试验方法 Standard Test Method for Nondestructive Measurement of Film Thickness of Pipeline

No.	标准编号 Standard Nr.	标准名称 Standard Name
		Coatings on Steel
78	GB/T 24196-2009	金属和合金的腐蚀 电化学实验方法恒电位和动电位极化测试导则 Corrosion of metals and alloys—Electrochemical test methods—Guidelines for conducting potentiostatic and potentiodynamic polarization measurements
79	YY/T 0695-2008	小型植入器械腐蚀敏感性的循环动电位极化标准测试方法 Standard test method for conducting cyclic potentiodynamic polarization measurements to determine the corrosion susceptibility of small Implant devices
80	ISO15156/NACE MR0175-2015	石油和天然气工业-材料中含硫化氢环境的石油和天然气生产中使用 Petroleum and natural gas industries - Materials for use in H ₂ S-containing environments in oil and gas production

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