



# ASTM International

## 使用手册



# ASTM 组织简介

ASTM	<b>American Society for Testing and Materials (美国材料试验协会)</b>
成立时间	<b>1898 年</b>
学会性质	非营利性的标准学术团体

# ASTM 范围

- 钢铁产品
- 有色金属
- 金属材料试验方法及分析程序
- 建筑材料
- 石油产品、润滑剂及矿物燃料
- 油漆、相关涂料和芳香族化合物
- 纺织品及材料
- 塑料
- 橡胶
- 电气绝缘体和电子产品
- 水和环境技术
- 核能，太阳能
- 医疗设备和服务
- 仪器仪表及一般试验方法
- 通用工业产品、特殊化学制品和消耗材料

# ASTM 数据库使用说明

- Digital Library 数字图书馆
- Standard Collection 工业标准

ASTM 首页



Standards
Digital Library
Books & Journals
Technical Committees
Membership
Meetings
Symposia & Workshops
Training Courses
Proficiency Testing
Equipment Directory
Lab Directory
Consultants Directory
About ASTM International
Magazines & Newsletters
News Releases
ASTM Campus
Global Cooperation

En Español 日本語 中文 Other Languages

**Login** Home Site Map Online Support Contact Web Policies IP Policy

**ASTM International**  
*Standards Worldwide*

Welcome to ASTM International, an open forum for the development of high-quality, market-relevant international standards used around the globe.  
**Read more about ASTM International >>**

View Shopping Cart

Latest News	Recent Publications	New Initiatives
<p><b>Flight Authority Standard Is Issued</b></p>  <p>The airworthiness subcommittee of ASTM International Committee F38 on Unmanned Air Vehicle Systems</p>	<p><b>New! ASTM Digital Library</b></p>  <p>Download the electronic edition of nearly every ASTM book, paper, or chapter from nearly every piece of work published by ASTM. The new ASTM Digital Library provides over 30,000 papers and chapters and more</p>	<p><b>New Antimicrobial Medical Gloves Task Group Is Formed</b></p>  <p>Responding to the growing number of healthcare association infections, a</p>



# ASTM 登入



ASTM Home

Society Review

Change Password

Membership

Help

**Logout** | [Site Map](#) | [Online Support](#) | [Contact](#) | [Web Policies](#) | [IP Policy](#)

Site Search



MyASTM/

Welcome, Hinton Information Services

学校名称

Please Select:

Account#: 466783

- [MyStandards](#)
- [MyPassportToSteel](#) [Renew](#)
- [My Digital Library](#)

订购内容

Hinton Information Services  
 Baiyang Road Pudong  
 Attn: Rita Teng  
 Rm 1102 #20 Alley 199  
 SHANGHAI 201204  
 China

[Site Map](#) | [Online Support](#) | [Contact](#) | [Privacy Policy](#) | [IP Policy](#)

Copyright © 1996-2008 ASTM. All Rights Reserved.  
 ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA



# ASTM 数字图书馆 数据类型

包含 ASTM 美国材料试验协会技术报告和期刊发表的...所有文章、论文以及相关图书。

- 超过 950 种技术报告
- 超过 50 种手册和专著
- 超过 13,000 篇期刊文章
- 30,000 篇论文和章节
- 430,000 笔技术数据

The screenshot shows the ASTM Digital Library homepage. At the top, there is a navigation bar with the following links: Home, Journals, STPs, Manuals, Topics, and Terminology Dictionary. Below this, the user is logged in as 'MyASTM/My Digital Library' and is greeted with a 'Welcome' message and a 'View Account Usage' button. A section titled 'Your My Digital Library gives you access to the following:' lists the available content: 'Digital Library - COMPLETE (expires December 31, 2010)'. Below this is a search section titled 'Search Library by Keyword' with a search input field, a dropdown menu set to 'Entire Library', and a search button. A dropdown menu is open, showing search options: Full Text Search (selected), Full Text Search, Full Bibliographic Record, Author, Affiliation, Abstract, Title, DOI, Committee, and Symposium. There is also a 'Search Tips' link and a dropdown menu set to '2008'.



# 专业技术报告 ( Special Technical Publications)

- 专家评审的技术论文汇编，反映全球新兴技术关键领域的最新研究成果。
- 专业技术报告(STP)提供导致新标准的技术,及其发展的深刻见解,通常以ASTM的 140 个技术委员会主办的研讨会为基础,包含环境、石油、金属、建筑、地球技术工程专业领域。
- 专业技术报告(STP),包括超过 950 本图书,近19,000 篇论文。可迅速获得由 ASTM 主办的各场
- 研讨会上的每篇论文。

## 手册 (Manuals)

- 提供读者操作应用信息的实用图书。附有大量插图，含大量信息和关于全部背景资料的详细参考文献。
- 手册提供 ASTM 标准的“幕后”细节，即标准是如何制定的，及制定的原因，包括它们的意义和用途等。
- 书中说明进行试验的技巧和有益的建议。

## 专著 (Monographs)

- 专著是高级专家的参考文献，论述以技术性为内容的主题。
- 通常专注于大型主题具体的方面，或者也称之为特定主题。
- 专著为技术精湛的读者提供专门领域的宝贵理论。



# 期刊 (Journal Articles)

提供全面的检索权限，范围超过13,000 篇论文。包括：

- ASTM国际期刊(JAI)
- 测试和评估期刊(JTE)
- 土质技术的测试的期刊(GTJ)
- 法医学期刊：1972-2005 (JOFS)
- 综合、技术和研究期刊(JCTR)
- 水泥、混凝土和聚集体期刊(CCA)

ASTM 各类期刊提供不同技术领域之竞争与最新发现、研究成果和经验。

高质量与市场相关的论文都经过专家评审和校订，保持信息通畅，提供研究和发现的权威观点。

# Digital Library 数字图书馆首页



ASTM Home

My Choices

Change Password

Renew Your Membership

Help

Logout

Site Map Online Support Contact Web Policies IP Policy

Site Search

Go

View Shopping Cart

ASTM Digital Library

Home

Journals

STPs

Manuals

Topics

Terminology Dictionary

MyASTM/My Digital Library

Welcome

View Account Usage

下载记录

订购资源与种类  
相关信息

Your My Digital Library gives you access to the following:

- Digital Library - COMPLETE (expires December 31, 2010)

Account#:466783

Search Library by Keyword

in Entire Library

- Entire Library
- STPs
- Journals
- Manuals

Full Text Search ▼

Sort Order: Relevance ▼

Date Range: 1930 ▼ through 2008 ▼

依关键词检索  
=>技术报告.  
期刊.手册.专著  
=>设定字段, 缩小  
检索结果

Baiyang Road  
Pudong  
Attn: Rita Teng  
Rm 1102 #20  
Alley 199  
SHANGHAI  
201204  
China

# ASTM 浏览方法

## Search Library by Keyword

in **Entire Library** ▼

**Full Text Search** ▼ [Search Tips](#)

Sort Order: **Relevance** ▼

Date Range: **1930** ▼ through **2008** ▼

## Browse by Topic

**Iron and Steel Products** ▼

## Browse by Sub-Topic

**Activated Carbon** ▼

## Browse by ASTM Committee

**A01-Steel, Stainless Steel and Rel** ▼

## Browse by Past Symposium

**A01-Steel, Stainless Steel and Rel** ▼

## Browse by E-Book

**Manuals** ▼

ASTM DL 提供多元化检索技巧与浏览方法:

- 依照关键词作检索
- 依15大主题领域. 浏览
- 依ASTM委员会代码出版品浏览
- 依讨论会主题作浏览
- 浏览电子书、电子期刊

# ASTM Digital Library – Journals

Logout Site Map Online Support Contact Web Policies IP Policy

Return to MyDigitalLibrary Print

ASTM Digital Library

Home Journals STPs Manuals Topics

## Digital Library / Journals


Stay up-to-date on the daily findings, research, and experiences of your colleagues. Peer reviewed and edited, these high-quality, market-relevant papers keep you in-the-know and provide an insiders view into what others are studying and discovering.

- [Journal of ASTM International \(JAI\)](#)
- [Journal of Testing and Evaluation \(JTE\)](#)
- [Geotechnical Testing Journal \(GTJ\)](#)
- [Journal of Forensic Sciences 1972-2005 \(JOFS\)](#)
- [Journal of Composites, Technology and Research \(JCTR\)](#)
- [Journal of Cement, Concrete and Aggregates \(CCA\)](#)

可点选期刊，查看文章摘要与下载全文档案

# ASTM Digital Library – Journals

[Logout](#)
[Site Map](#)
[Online Support](#)
[Contact](#)
[Web Policies](#)
[IP Policy](#)

[Return to MyDigitalLibrary](#)
 [Print](#)

## ASTM Digital Library

[Home](#)
[Journals](#)
[STPs](#)
[Manuals](#)
[Topics](#)

### Digital Library / Journal of ASTM International (JAI) / Search by Topic

- » [Materials Performance and Characterization](#)
- » [Civil Engineering and Building Materials](#)
- » [Petroleum and Chemical Engineering](#)
- » [Nuclear Science and Technology](#)
- » [Environmental Science and Technology](#)
- » [Medical, Health, and Safety](#)
- » [General Technology](#)

#### Journal of ASTM International (JAI)

Recommend this Journal  
to Your Librarian

选择主题


Please Click on the links to learn more information about the Journal of ASTM International.


<a href="#">Search</a>	<a href="#">About This Journal</a>
<a href="#">Table of Contents</a>	<a href="#">COP Policies</a>
<a href="#">Editorial Board</a>	<a href="#">Subscription Information</a>
<a href="#">Online Paper Submittal</a>	<a href="#">Reprint Order Form</a>



# ASTM Digital Library – Journals

[Logout](#)
[Site Map](#)
[Online Support](#)
[Contact](#)
[Web Policies](#)
[IP Policy](#)

[Return to MyDigitalLibrary](#)
 [Print](#)



[Home](#)
[Journals](#)
[STPs](#)
[Manuals](#)
[Topics](#)

Digital Library / Journal of Testing and Evaluation (JTE) / Search by Table of Contents

## [First Look Papers](#)

**Note to users:** The section First Look Papers contains peer reviewed articles published in this journal. When the final article is assigned to an issue of the Journal, the First Look Papers version will be removed from this section and will appear in the final issue.

- [Volume 36, Issue 6 \(November 2008\)](#)
- [Volume 36, Issue 5 \(September 2008\)](#)
- [Volume 36, Issue 4 \(July 2008\)](#)
- [Volume 36, Issue 3 \(May 2008\)](#)
- [Volume 36, Issue 2 \(March 2008\)](#)

Most Recent 25 [ALL](#)

## Browse JTE

[Topic](#) →  
[Year](#)



Recommend this Journal  
to Your Librarian

## Digital Library / Browse JTE by Topic

- [Iron and Steel Products](#)
- [Nonferrous Metal Products](#)
- [Metals Test Methods and Analytical Procedures](#)
- [Construction](#)
- [Petroleum Products, Lubricants, and Fossil Fuels](#)
- [Paints, Related Coatings, and Aromatics](#)
- [Textiles](#)
- [Plastics](#)
- [Rubber](#)
- [Electrical Insulation and Electronics](#)
- [Water and Environmental Technology](#)
- [Nuclear, Solar, and Geothermal Energy](#)
- [Medical Devices and Services](#)
- [General Methods and Instrumentation](#)
- [General Products, Chemical Specialities, and End Use Products](#)

[Search](#)

[About This Journal](#)

[Editorial Board](#)

[COP Policies](#)



# ASTM Digital Library – Journals

2008  
Volume 36, Issue 6 (November 2008)



THIS ISSUE IS COMPLETE. for citation purposes, the official publication of this journal is the online version.

## [Medical Image Semi-fragile Watermarking in the Frequential Field](#)

Kallel I., Lapayre J., Bouhlel M.

**Page Count:** 6

**Published:** 01 November 2008

[Abstract](#)

[Download PDF](#) PDF (272K)

**Paper ID:** JTE101053

**DOI:** 10.1520/JTE101053

## [Testing and evaluation of water hydraulic components by acoustic emission and wavelet analysis](#)

Chen H., Chua P., Lim G.

**Page Count:** 6

**Published:** 01 November 2008

[Abstract](#)

[Download PDF](#) PDF (288K)

**Paper ID:** JTE101207

**DOI:** 10.1520/JTE101207

## [High Performance Stucco to Optimize Moisture Management in Wood-Frame Stucco Walls](#)

Mukhopadhyaya P., Kumaran K., Plescia S., Lackey J., Normandin N., van Reenen D.

**Page Count:** 10

**Published:** 01 November 2008

[Abstract](#)

[Download PDF](#) PDF (368K)

**Paper ID:** JTE101447

**DOI:** 10.1520/JTE101447

Digital Library / Journals / Journal of Testing and Evaluation (JTE) / Citation Page

Volume 36, Issue 6 (November 2008)

**ISSN:** 0090-3973

[Click here to download this paper](#) PDF (272K)

**Page Count:** 6

[View License Agreement](#)

## Medical Image Semi-fragile Watermarking in the Frequential Field

Kallel, Imen Fourati

Lapayre, Jean-Christophe

*Informatic Laboratory of Franche Comte, LIFC (FRE CNRS 2661),*

Bouhlel, Mohamed Salim

*Research Unit: Sciences and Technologies of Image and Telecommunications Higher Institute of Biotechnology,*

摘要

### Abstract

Medical imaging requires great integrity of content since any change in the image even in a slight amount might affect the diagnosis. Semi-fragile watermarking could be the best technique to provide an efficient image authentication tool for medical images. In this paper, we propose a semi-fragile watermarking technique for the tamper proofing of still images that can tolerate JPEG lossy compression to a predetermined lowest quality factor and rejects any replacement process. We also present comparison performance for the proposed algorithm to eight other common techniques.

### Keywords:

semi-fragile, tamper proofing, JPEG compression

关键词

**Paper ID:** JTE101053

**DOI:** 10.1520/JTE101053

ASTM International is a member of CrossRef.

# 期刊文章著作同意书



## ASTM License Agreement

### ASTM License Agreement

**IMPORTANT- READ THESE TERMS CAREFULLY BEFORE ENTERING THIS ASTM PRODUCT.**

By purchasing a subscription and clicking through this agreement, you are entering into a contract, and acknowledge that you have read this License Agreement, that you understand it and agree to be bound by its terms. If you do not agree to the terms of this License Agreement, promptly exit this page without entering the ASTM Product.

#### 1. Ownership:

[Yes, I agree with the License.](#)  
[Go to my download page and add the download\(s\) to my counter](#)

[No, I disagree with the License](#)  
[Do not download the document\(s\) and return to the Standards Search.](#)

# 下载期刊文章



## DOWNLOAD ACCESS SUMMARY

Access Granted



[contains 6 pages](#)).

[DOWNLOAD DOCUMENT JTE101053-DL HERE \(This document](#)

Your access account has been modified to reflect the above download(s). To view your updated account summary, [click here](#).

If you are new to downloading and saving PDF files on the Web, please review the Download/Save Instructions for your web browser below:

- [Download/Save Instructions](#)

[Help Desk](#)

[Return to Subscriptions Search](#)

# ASTM 文章全文檔

Journal of Testing and Evaluation, Vol. 36, No. 6  
Paper ID JTE101053  
Available online at: www.astm.org

*Imen Fourati Kallel,<sup>1,2</sup> Jean-Christophe Lapayre,<sup>2</sup> and Mohamed Salim Bouhlel<sup>3</sup>*

## Medical Image Semi-fragile Watermarking in the Frequential Field

---

**ABSTRACT:** Medical imaging requires great integrity of content since any change in the image even in a slight amount might affect the diagnosis. Semi-fragile watermarking could be the best technique to provide an efficient image authentication tool for medical images. In this paper, we propose a semi-fragile watermarking technique for the tamper proofing of still images that can tolerate JPEG lossy compression to a predetermined lowest quality factor and rejects any replacement process. We also present comparison performance for the proposed algorithm to eight other common techniques.

**KEYWORDS:** semi-fragile, tamper proofing, JPEG compression

### Introduction

With the widespread expansion of computer networks and the rapid development of multimedia technologies, medical images can be readily shared via these networks and easily used, processed, and transmitted [1]. This has caused problems relative to the authentication and integrity of medical image. The urgent demand for detecting any and all modifications on medical images has motivated

tial domain and those operating in a transform domain, for example, in DCT transform domain.

### *Semi-Fragile Watermarking Methods in the Spatial Domain*

Quelez [5] computed the rank order relationship of image projections on three secret directions to an image authenticator. The



# ASTM Digital Library – STPs

## ASTM Digital Library

[Home](#)
[Journals](#)
[STPs](#)
[Manuals](#)
[Topics](#)

### Digital Library / STPs

STPs, Special Technical Publications, are collections of peer-reviewed papers.

### Recently Published STPs

- [STP1489](#) Oxidation and the Testing of Turbine Oils
- [STP1491](#) Engine Coolant Technologies: 5th Volume
- [STP1494](#) Natural Cement
- [STP1496](#) Masonry
- [STP1501](#) Automotive Lubricant Testing and Advanced Additive Development

[Most Recent 25](#)    [ALL](#)

### Browse STPs

[Topic](#)  
[Year](#)

### Digital Library / Browse STP by Topic

- [Iron and Steel Products](#)
- [Nonferrous Metal Products](#)
- [Metals Test Methods and Analytical Procedures](#)
- [Construction](#)
- [Petroleum Products, Lubricants, and Fossil Fuels](#)
- [Paints, Related Coatings, and Aromatics](#)
- [Textiles](#)
- [Plastics](#)
- [Rubber](#)
- [Electrical Insulation and Electronics](#)
- [Water and Environmental Technology](#)
- [Nuclear, Solar, and Geothermal Energy](#)
- [Medical Devices and Services](#)
- [General Methods and Instrumentation](#)
- [General Products, Chemical Specialities, and End Use Products](#)

### Digital Library / STPs / Year

#### 2008

- [STP1501](#) Automotive Lubricant Testing and Advanced Additive Development
- [STP1496](#) Masonry
- [STP1494](#) Natural Cement
- [STP1491](#) Engine Coolant Technologies: 5th Volume
- [STP1489](#) Oxidation and the Testing of Turbine Oils

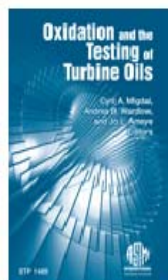
#### 2007

- [STP1504](#) Roofing Research and Standards Development: 6th Volume
- [STP1499](#) Dimension Stone Use in Building Construction
- [STP1497](#) Residual Stress Effects on Fatigue and Fracture Testing and Incorporation in Design
- [STP1495](#) Heat-Air-Moisture Transport: Measurements on Building Materials
- [STP1490](#) Reactor Dosimetry: 12th International Symposium
- [STP1487](#) Structural Integrity of Fasteners Including the Effects of Environment and Cracking: 3rd Volume

# ASTM Digital Library – STPs



Digital Library / STP / STP1489-EB



**Oxidation and the Testing of Turbine Oils**  
Migdal Cyril

Pages: 121 Published: 2008

[Click here to download this E-Book now](#) PDF (5.8M) [View License Agreement](#)

[Overview](#)

[Table of Contents](#)

完整浏览STP1489-EB

[Oxidation Fundamentals and Its Application to Turbine Oil Testing](#)

Gatto Vincent, Moehle William, Cobb Tyler, Schneller Emily

[Modern Turbine Oil Oxidation Performance Limits Meeting and Measuring Them A Shell Perspective](#)

Smith Peter W.

[Physical, Performance, and Chemical Changes in Turbine Oils from Oxidation](#)

Livingstone Greg, Thompson Brian, Okazaki Mark

[Studies of the Oxidation Dynamics of Turbine Oils Initial Data from a New Form of the Rotating](#)

[Pressure Vessel Oxidation Test](#)

## 1. 完整浏览 2. 单篇浏览



Digital Library / STP1489-EB / STP45720S

**Oxidation Fundamentals and Its Application to Turbine Oil Testing**

Gatto Vincent, Moehle William, Cobb Tyler, Schneller Emily

Pages: 20 Published: Jan 2008

[Click here to download this paper now](#) PDF (952K)

[Click here to download the complete source publica](#)

Source: [STP1489-EB](#)

单篇浏览

STP1489-EB  
/ STP45720S

### Abstract

The current turbine oil oxidation bench tests have been in place for many years. Recently, however, the basestocks used to formulate these lubricants have changed significantly. Traditional basestocks, containing high levels of aromatics and sulfur, have been substantially displaced by more highly refined basestocks, which have very low levels of aromatics and almost no sulfur. Over time it has become clear that the oxidation performance of the different basestock classes is quite different. One key question, however, remains unanswered, What modifications are required in current bench tests to adequately mimic oxidation processes in modern turbine lubricants? In order to adequately address this critical question, the fundamentals of lubricant oxidation and stabilization will be discussed. Data will be presented on the oxidation of different basestocks under varying conditions of temperature, metal catalysts and antioxidant type, using model bulk oil oxidation tests. The data highlights the fundamental oxidation mechanisms that can occur in turbine oil systems and new test methods are proposed.

### Keywords:

oxidation, stabilization, deposits, sludge, antioxidant, turbine oil, basestock, metal catalysts, bench tests, ASTM D 943, ASTM D 2272, CM-A (ASTM D 2070)

Paper ID: STP45720S

Committee/Subcommittee: D02.09

Collection(s): Petroleum Products, Lubricants, and Fossil Fuels collection

DOI: 10.1520/STP45720S



# ASTM Digital Library - Manuals and Monographs

## ASTM Digital Library

[Home](#)[Journals](#)[STPs](#)[Manuals](#)[Topics](#)

### Digital Library/Manuals and Monographs

Get practical, hands-on application information (Manuals) or advanced and highly technical information (Monographs) from highly-regarded experts in their respective fields.

### Recently Published Manuals and Monographs

- [MNL61](#) Guide to ASTM Test Methods for the Analysis of Coal and Coke
- [MNLTP15](#) Manual of Petroleum Measurement Standards Chapter 11-Physical Properties Data, Section 2, Part 5
- [MNLTP27](#) Manual of Petroleum Measurement Standards Chapter 11-Physical Properties Data, Section 2, Part 4
- [MNL55](#) International Consumer Product Testing Across Cultures and Countries
- [MNL36](#) Safe Use of Oxygen and Oxygen Systems: Handbook for Design, Operation, and Maintenance: Second Edition

[Most Recent 25](#)    [ALL](#)

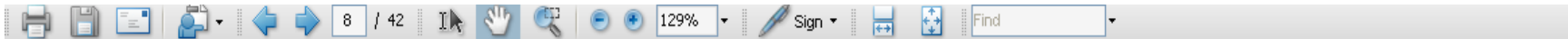
### Browse Manuals and Monographs

[Topic](#)

[Year](#)

可点选：手册、专著，  
查看文章摘要与下载全  
文档案

# ASTM PDF



of a coal or a coke related product, many other national and international standards are based on original ASTM D05 standards.

There are about 55 analytical test method standards under D05 Committee's jurisdiction. These standards involve a variety of physical, chemical, and spectroscopic analytical techniques to qualitatively and quantitatively identify over 40 chemical and physical properties of coal, coke, and their products and by-products. These test methods are annually published in the *Annual Book of ASTM Standards* (2). Additional methods continue to be developed in many energy company laboratories and elsewhere either to improve on the existing methods or to enable determination of other properties.

With the certainty that coal resources will continue to be a dominant contributor to the energy industry in the United States and elsewhere in the world, ASTM Committee D05 continues to provide standards that ensure significant technological, economic, productivity, and environmental benefits from

(1) L.C.G Janke, J.A. Luppens, and R. D. Graham—*ASTM Standardization News*, ASTM International, West Conshohocken, PA, July 2004, pp. 22–27.

(2) *Annual Book of ASTM Standards*, Vol. 05.06, ASTM International, West Conshohocken, PA, 2006.

(3) Committee on Standards, “Precision and Bias,” *ASTM Standardization News*, ASTM International, West Conshohocken, PA, January 1985, pp. 45.

- 下载文件，每页之页缘均会显示
1. Copyright by ASTM International
  2. 标准下载之日期 / 时间
  3. 订购单位之名称与主要联络人

Copyright by ASTM Int'l (all rights reserved); Mon Dec 8 03:35:45 EST 2008

Downloaded/printed by

Rudy Teng (Hinton Information Services) pursuant to License Agreement. No further reproductions authorized.

Copyright by ASTM Int'l (all rights reserved); Mon Dec 8 03:35:45 EST 2008

Downloaded/printed by

Rudy Teng (Hinton Information Services) pursuant to License Agreement. No further reproductions authorized.

# ASTM Digital Library – Topics



## Digital Library / Topics

Get access to the papers and chapters in any one of 15 different subject areas. You'll get everything ever published in that area whether it appeared in an STP, Manual, Monograph, or Journal.

Click a topic area below to browse the Library by topic.

[Iron and Steel Products](#)

[Nonferrous Metal Products](#)

[Metals Test Methods and Analytical Procedures](#)

[Construction](#)

[Petroleum Products, Lubricants, and Fossil Fuels](#)

[Paints, Related Coatings, and Aromatics](#)

[Textiles](#)

[Plastics](#)

[Rubber](#)

[Electrical Insulation and Electronics](#)

[Water and Environmental Technology](#)

[Nuclear, Solar, and Geothermal Energy](#)

[Medical Devices and Services](#)

[General Methods and Instrumentation](#)

[General Products, Chemical Specialities, and End Use Products](#)

单一主题 但可以同时看到 **STPs, Manuals, Journal**



# ASTM Digital Library – Topics

## ASTM Digital Library

[Home](#)
[Journals](#)
[STPs](#)
[Manuals](#)
[Topics](#)

单一主题 但可以同时看到 **STPs, Manuals, Journal**

Digital Library / Topics / Iron and Steel Products

### STPs Special Technical Publications

[STP1465](#) Bearing Steel Technology-Advances and State of the Art in Bearing Steel Quality Assurance: 7th Volume

[STP1419](#) Bearing Steel Technology

[STP1361](#) Advances in the Production and Use of Steel with Improved Internal Cleanliness

[STP1327](#) Bearing Steels: Into the 21st Century

[STP1331](#) The Design and Application of Controlled Low-Strength Materials (Flowable Fill)

[View Most Recent 25 STPs](#) [View All STPs](#)

### Manuals

[MNL53](#) Steel Forgings: Design, Production, Selection, Testing, and Application

[MNL22](#) Total Quality Management: Guiding Principles for Application

[View Most Recent 25 Manuals](#) [View All Manuals](#)

### Journal of ASTM International

[Gas-Jet Quenching](#)

[C-Crack Initiation in Quasi-Static and Impact Loading of a Bearing-Grade Silicon Nitride](#)

[Relative Comparison Method of Rolling Contact Fatigue Performance of Silicon Nitrides by Stepwise Loading Balls-on-Flat](#)

[Corrosion of Phosphoric Irons in Acidic Environments](#)

[Effect of Active Elements on the Oxidation Behavior of a FeCrAl Alloy Produced by Co-Rolling and Annealing](#)

[View Most Recent 25 JAI papers](#) [View All JAI papers](#)

### Journal of Testing and Evaluation

[FIMEC Tests on SPS sintered FeMo Ultra-Fine-Grained Alloys](#)

[Performance Evaluation Test of the Time-of-Flight Diffraction Technique for Welded Joints of Steel Bridges](#)

[Determination of Material Properties of Functionally Graded Plate Using the Dispersion of Guided Waves and an Artificial](#)

[Quantification of Constitutive Behavior of Sheet Metals Subjected to Dynamic Bulge Loading](#)

[Crack Growth Behavior in Overloaded Specimens with Sharp Notch in Low Carbon Steel](#)

[View Most Recent 25 JTE papers](#) [View All JTE papers](#)

# ASTM Standard Collection

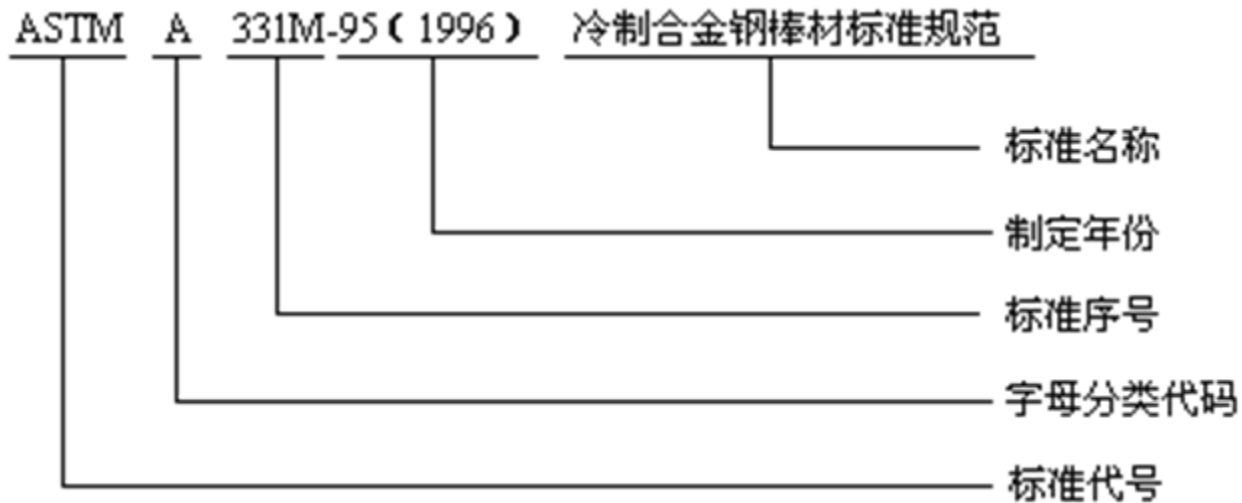
## 工业标准类型

- Technical Specification (技术规范)
- Guidance (指南)
- Test Method (试验方法)
- Classification (分类法)
- Standard Practice (标准惯例)
- Terminology (术语)
- Definition (定义)
- Test Report (试验报告)
- 还包括：试验方法可使用性

# ASTM 标准的编号方法

- ASTM标准编号形式为：  
标准代号+字母分类代码+标准序号+制定年份+标准英文名称

示例：





# ASTM 标准的编号方法

说明:

1. 标准序号后带字母M的为米制单位标准，不带字母M的为英制单位标准。
2. 制定年限后面括号内的年代为标准重新审定的年代。
3. a. b. c. . . . . 表示修订版次。
4. 字母分类代码为：
  - A —— 黑色金属
  - B —— 有色金属（铜，铝，粉末冶金材料，导线等）
  - C —— 水泥，陶瓷，混凝土与砖石材料
  - D —— 其它各种材料（石油产品，燃料，低强塑料等）
  - E —— 杂类（金属化学分析，耐火试验，无损试验，统计方法等）
  - F —— 特殊用途材料（电子材料，防震材料，外科用材料等）
  - G —— 材料的腐蚀，变质与降级

# ASTM Standard Collection

[Logout](#)
[Site Map](#) | [Online Support](#) | [Contact](#) | [Web Policies](#) | [IP Policy](#)

Site Search

MyASTM

## MyASTM/

Welcome, Hinton Information Services

Please Select:

- [MyStandards](#)
- [MyPassportToSteel](#) [Renew](#)
- [My Digital Library](#)

选择 **MyStandards**

Account#: 466783

Hinton Information Services  
 Baiyang Road Pudong  
 Attn: Rita Teng  
 Rm 1102 #20 Alley 199  
 SHANGHAI 201204  
 China

# ASTM Standard Collection

## MyASTM/MyStandards

Welcome Hinton Information Services

单位名称

View Account Usage

下载情况

Your MyStandards collection gives you access to the following:

Account#:466783

- **Subscription to:**
- ASTM Access Account - Plus (expiration December 31, 2010)

订购产品状况 及到期日

Hinton Information Services  
Baiyang Road Pudong  
Attn: Rita Teng  
Rm 1102 #20 Alley  
199  
SHANGHAI 201204  
China

Search your MyStandards collection below:

### SEARCH

Enter Designation or Keyword

Search All (Designations, Titles, Scopes, & Terms) ▾

All Standards ▾

- Search MyStandards collection only
- Search entire ASTM collection

Search

Clear Form

### Browse by Interest Area

Adhesives ▾

Browse

View the Alphanumeric Listing of Standards

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [ISO](#) [UOP](#) [Withdrawn](#) [Work Items](#)

[What are Plus and Basic Subscriptions?](#)

[What is the Annual Book of ASTM Standards Online?](#)

### 检索方式:

1. 搜寻  
输入标准编号/关键词  
现行标准. 历史标准等

2. 浏览  
依主题. 兴趣类别查看

# 搜寻

Search your MyStandards collection below:

**SEARCH**

**Enter Designation or Keyword**

A153

Search All (Designations, Titles, Scopes, & ...)

**Suggestions**

a153/a153m

---

**Browse by Interest Area**

Adhesives

---

**View the Alphanumeric Listing of Standards**

输入关键词或标准编号  
选择

**All Standards**

**Active Standards**

**Historical Document**

**Withdrawn Standards**

=>草稿. 现行或历史标准...

# 浏览

Search your MyStandards collection below:

**SEARCH**

Enter Designation or Keyword

Search All (Designations, Titles, Scopes, & Terms) ▾

All Standards ▾

Search MyStandards collection only  
 Search entire ASTM collection

---

**Browse by Interest Area**

Adhesives ▾

---

**View the Alphanumeric Listing of Standards**

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [ISO](#) [UOP](#) [Withdrawn](#) [Work Items](#)

**MyASTM/MyStandards**

Adhesives ▾

Welcom  
 ———  
 Your M  
 Buildings  
 Business Copy Products  
 · Subs  
 · AST  
 Carbon  
 Catalysts  
 Cement & Concrete  
 Chemicals: Paint & Coatings  
 Chromatography  
 Coal & Gas  
 Composites  
 Computerized Systems  
 Consumer Products  
 Consumer Product Evaluation  
 Search  
 SEAR  
 Enter  
  
 Search  
 Copper  
 Corrosion & Wear  
 Durability of Nonmetallic Materials  
 Electrical Insulating Materials  
 Electrical and Magnetic Conductors  
 Electronics  
 Se  
 Se  
 Environmental Assessment  
 Environmental Risk Management

**View the Alphanumeric Listing of Standards**

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [ISO](#) [UOP](#) [Withdrawn](#) [Work Items](#)

浏览标准:

- 1.运用主题领域下拉式选单。可依所列的领域选择, 查看并检索相关标准文件。
- 2.依照标准编号字母顺序。英文字母顺序检索标准编号, 查看并检索相关文件。



# 搜寻结果

## Search Results:

Active Standard(s): Result(s) 1 through 5 of 26 results.

Download Selected

All Versions	Designation	Title	Select PDF (s)
<a href="#">View</a>	<b>A153/A153M-05</b>	<a href="#">Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>	<input type="checkbox"/>
Back to Steel Standards. ASTM <b>A153 / A153M</b> - 05. ASTM <b>A153 / A153M</b> - 05 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. ...			
<a href="#">View</a>	<b>D6386-99 (2005)</b>	<a href="#">Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting</a>	<input type="checkbox"/>
... steel is produced by the immersion of fabricated or unfabricated products in a bath of molten zinc, as specified in Specifications A 123 or <b>A153/A153M</b> . ...			
<a href="#">View</a>	<b>F1916-98</b>	<a href="#">Standard Specifications for Selecting Chain Link Barrier Systems With Coated Chain Link Fence Fabric and Round Posts for Tention Applications1</a>	<input type="checkbox"/>
... for Zinc-Coated (Galvanized) Steel Barbed Wire A123 Specification for Zinc (Hot-Dip Galvanized) Coating on Iron and Steel Products <b>A153/A153M</b> Specification ...			
<a href="#">View</a>	<b>F1667-05</b>	<a href="#">Standard Specification for Driven Fasteners: Nails, Spikes, and Staples</a>	<input type="checkbox"/>
... <b>A153/A153M</b> Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware A510M Specification for General Requirements for Wire Rods and Coarse Round Wire ...			
<a href="#">View</a>	<b>F2329-05</b>	<a href="#">Standard Specification for Zinc Coating (Hot-Dip) Requirements for Application to Carbon and Alloy Steel Bolts, Screws, Washers, Nuts, and Special Threaded Fasteners</a>	<input type="checkbox"/>
... <b>A153/A153M</b> Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware A563 Specification for Carbon and Alloy Steel Nuts B467 Test Method for ...			
<a href="#">Next 5</a> <a href="#">Show All Results</a>			

Historical Standard(s): Result(s) 1 through 5 of 96 results.

Download Selected

All Versions	Designation	Title	Select PDF (s)
<a href="#">View</a>	<b>A153/A153M-00</b>	<a href="#">Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>	<input type="checkbox"/>
ASTM <b>A153/A153M</b> -00. Historical Standard: ASTM <b>A153/A153M</b> -00 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. SUPERSEDED. ...			
<a href="#">View</a>	<b>A153/A153M-01</b>	<a href="#">Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>	<input type="checkbox"/>
ASTM <b>A153/A153M</b> -01. Historical Standard: ASTM <b>A153/A153M</b> -01 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. SUPERSEDED. ...			
<a href="#">View</a>	<b>A153/A153M-01A</b>	<a href="#">Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>	<input type="checkbox"/>
ASTM <b>A153/A153M</b> -01a. Historical Standard: ASTM <b>A153/A153M</b> -01a Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. SUPERSEDED. ...			
<a href="#">View</a>	<b>A153/A153M-02</b>	<a href="#">Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>	<input type="checkbox"/>
ASTM <b>A153/A153M</b> -02. Historical Standard: ASTM <b>A153/A153M</b> -02 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. SUPERSEDED. ...			
<a href="#">View</a>	<b>A153/A153M-03</b>	<a href="#">Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>	<input type="checkbox"/>
ASTM <b>A153/A153M</b> -03. Historical Standard: ASTM <b>A153/A153M</b> -03 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. SUPERSEDED. ...			
<a href="#">Next 5</a> <a href="#">Show All Results</a>			

Withdrawn Standard(s): Result(s) 1 through 1 of 1 results.

Download Selected

All Versions	Designation	Title	Select PDF (s)
<a href="#">View</a>	<b>F1916-98</b>	<a href="#">Standard Specifications for Selecting Chain Link Barrier Systems With Coated Chain Link Fence Fabric and Round Posts for Tention Applications1</a>	<input type="checkbox"/>
... for Zinc-Coated (Galvanized) Steel Barbed Wire A123 Specification for Zinc (Hot-Dip Galvanized) Coating on Iron and Steel Products <b>A153/A153M</b> Specification ...			
<a href="#">Show All Results</a>			

Workitems Standard(s): Result(s) 1 through 2 of 2 results.

Download Selected

All Versions	Designation	Title	Select PDF (s)
<a href="#">View</a>	<b>WK21055-</b>	<a href="#">Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>	
... Work Item: ASTM WK21055 - Revision of <b>A153/A153M</b> -05 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. Active Standard: <b>A153/A153M</b> -05 ...			
<a href="#">View</a>	<b>WK21098-</b>	<a href="#">Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>	
... Work Item: ASTM WK21098 - Revision of <b>A153/A153M</b> -05 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. Active Standard: <b>A153/A153M</b> -05 ...			
<a href="#">Show All Results</a>			

呈现所有相关的标准

# 点选需要的标准

## View All Versions for A153/A153M:

Click any Designation [link](#) to view a Document Summary Description.

Status	Document Designation and Title	HTML Version	Download PDF(s)
Active	<a href="#">A153/A153M-05 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>	<a href="#">View</a>	<input type="checkbox"/>
Active + Redline	<a href="#">A153/A153M-05 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>		<input type="checkbox"/>
Historical	<a href="#">A153/A153M-04 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>		<input type="checkbox"/>
Historical	<a href="#">A153/A153M-03 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>		<input type="checkbox"/>
Historical	<a href="#">A153/A153M-02 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>		<input type="checkbox"/>
Historical	<a href="#">A153/A153M-01a Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>		<input type="checkbox"/>
Historical	<a href="#">A153/A153M-01 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>		<input type="checkbox"/>
Historical	<a href="#">A153/A153M-00 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</a>		<input type="checkbox"/>

Download Selected Items

# 文章摘要

## ASTM A153/A153M-05

A153/A153M-05 **Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware**

Active Standard Developed by Subcommittee: [A05.13](#) | Book of Standards Volume: 01.06

Download Active Standard (PDF)


[more info](#)

5 pages

Download Active + Redline  
(counts as 1 download)

[more info](#)

10 pages

 [Historical](#) (view previous versions of standard)

Description

Related Standards  
Products

Find  
Equipment MFR.

### Abstract

This specification covers standards for zinc coatings applied through hot-dip process on iron and steel hardware. The hot-dip galvanizing process shall form layers of Zn/Fe alloy adhering to the steel surface. This specification is applicable to steel hardware items of Classes A, B, C, and D. The thickness or weight/mass of zinc coating shall conform to specified values for various classes of materials. The coated articles shall be free from uncoated areas, blisters, flux deposits, dross inclusions, and other defects. The coating shall be smooth and reasonably uniform in thickness. Tests shall be performed to determine the minimum coating weight or minimum coating thickness, finish and appearance, embrittlement, adherence, average weight/mass of coating, and average thickness of coating. Guidelines are also given for inspection, rejection and retest, packaging, and certification procedures.

*This abstract is a brief summary of the referenced standard. It is informational only and not an official part of the standard; the full text of the standard itself must be referred to for its use and application. ASTM does not give any warranty express or implied or make any representation that the contents of this abstract are accurate, complete or up to date.*

### 1. Scope

1.1 This specification covers zinc coatings applied by the hot-dip process

Users Also  
Downloaded:

[A123A123M](#)

[B633](#)

[B695](#)

标准的编号

标准的类型

### 2. Referenced Documents

[A780](#) Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings  
[A90/A90M](#) Test Method for Weight of Coating on Zinc-Coated (Galvanized) Iron or Steel Articles  
[A902](#) Terminology Relating to Metallic Coated Steel Products  
[B487](#) Test Method for Measurement of Metal and Oxide Coating Thicknesses by Microscopical Examination of a Cross Section  
[B6](#) Specification for Zinc (Slab Zinc)  
[E376](#) Practice for Measuring Coating Thickness by Magnetic-Field or Eddy-Current (Electromagnetic) Test Methods  
[F1470](#) Guide for Fastener Sampling for Specified Mechanical Properties and Performance Inspection  
[F1789](#) Terminology for F16 Mechanical Fasteners  
 A143 Practice for Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement

### Index Terms

coatings, zinc; galvanized coatings; steel hardware, zinc coated; steel products, metallic coated; zinc coatings, steel products; ICS Number Code 91.190; 91.190

DOI: 10.1520/A0153\_A0153M-05



ASTM International is a member of CrossRef.

# ASTM A153/A153M-05

## A153/A153M-05 Standard Specification for Zinc Coated Steel Hardware

Active Standard Developed by Subcommittee: [A05.13](#) | Book of:

Download Active Standard (PDF)

[more info](#)

Download Active + Redline  
(counts as 1 download)

[more info](#)

**Historical** (view previous versions of standard)

Description

Related Standards  
Products

Find  
Equipment MFR.

### Abstract

This specification covers standards for zinc coatings applied by the hot-dip process on iron and steel hardware. The hot-dip galvanized coating shall form layers of Zn/Fe alloy adhering to the steel surface. This specification is applicable to steel hardware items of Class D. The thickness or weight/mass of zinc coating shall conform to the values for various classes of materials. The coated article shall be free from uncoated areas, blisters, flux deposits, dross inclusions, and other defects. The coating shall be smooth and reasonably uniform in thickness. Tests shall be performed to determine the minimum weight or minimum coating thickness, finish and appearance, ductility, embrittlement, adherence, average weight/mass of coating, thickness of coating. Guidelines are also given for inspection, retest, packaging, and certification procedures.

*This abstract is a brief summary of the referenced standard. It is not an official part of the standard; the full text of the standard itself shall be used for its use and application. ASTM does not give any warranty or express any representation that the contents of this abstract are accurate, complete, or up-to-date.*

### 1. Scope

1.1 This specification covers zinc coatings applied by the

ASTM STD BASIC =>  
**Download Active Standard**

ASTM STD PLUS =>  
**Download Active + Redline Standard**





## DOWNLOAD ACCESS SUMMARY

Access Granted   [DOWNLOAD REDLINE STANDARD A153/A153M-RED HERE \(This document contains 5 pages\).](#)

Access Granted   [DOWNLOAD ACTIVE A153/A153M HERE \(This document contains 5 pages\).](#)

---

Your access account has been modified to reflect the above download(s). To view your updated account summary, [click here](#).

If you are new to downloading and saving PDF files on the Web, please review the Download/Save Instructions for your web browser below:

- [Download/Save Instructions](#)

[Help Desk](#)

[Return to Subscriptions Search](#)


---



# Standards Document – 标准文件

Copyright by ASTM Int'l (all rights reserved); Wed Jun 27 03:46:48 EDT 2007  
 Downloaded/printed by  
 Rudy Teug (Hinton Information Services) pursuant to License Agreement. No further reproductions authorized.

2



## A 153/A 153M – 05

shall be made in accordance with Practice **A 780**. The galvanizer shall make repairs unless directed by the purchaser to deliver items unrepaired for subsequent renovation by the purchaser.

501 to 1200  
 1201 to 3200  
 3201 to 10 000  
 10 001 and over

5  
 8  
 18  
 20

下载之标准文件，每页之页缘均会显示

1. **Copyright by ASTM International**
2. 标准下载之日期 / 时间
3. 订购单位之名称与主要联络人

# 使用标准注意事项

为避免误用过期标准数据，且尊重著作权法，前述各类标准均需被授权后，才可合法打印；不宜径行翻印及贩卖。



# For any question, please contact

讯泰管理顾问有限公司  
Hinton Information Services

Arlene Ho 何欣霓

Email: [arlene.ho@hintoninfo.com](mailto:arlene.ho@hintoninfo.com)

Tel: 010 68086838 x 6202

Fax: 010 68086837

**HINTON**  
INFORMATION SERVICES

