

Normas ASTM para Metalografia

A247: Visual Classification of Graphite in the Microstructure of Cast Iron
A892: Defining and Rating the Microstructure of High Carbon Bearing Steels
B390: Evaluating Apparent Grain Size and Distribution of Cemented Tungsten Carbides
B588: Measurement of the Thickness of Transparent or Opaque Coatings by Double-Beam Interference Microscope Technique
B657: Metallographic Determination of Microstructure in Cemented Tungsten Carbide
B681: Measurement of Thickness of Anodic Coatings on Aluminum and of Other Transparent Coatings on Opaque Surfaces Using the Light-Section Microscope
B748: Measurement of the Thickness of Metallic Coatings by Measurement of Cross Section with a Scanning Electron Microscope
B795: Determining the Percentage of Alloyed or Unalloyed Iron Contamination Present in Powder Forged Steel Parts
B796: Nonmetallic Inclusion Level of Powder Forged Steel Parts
B847: Measurement of Metal and Oxide Coating Thickness by Microscopical Examination of a Cross section
C664: Thickness of Diffusion Coating
E3: Preparation of Metallographic Specimens
E7: Standard Terminology Relating to Metallography
E45 Determining the Inclusion Content of Steel
E82: Determining the Orientation of a Metal Crystal
E112: Determining Average Grain Size
E340: Macroetching Metals and Alloys
E381: Macroetch Testing Steel Bars, Billets, Blooms, and Forgings
E384: Microindentation Hardness of Materials
E407: Microetching Metals and Alloys
E562: Determining Volume Fraction by Systematic Manual Point Count
E766: Calibrating the Magnification of a Scanning Electron Microscope
E768: Preparing and Evaluating Specimens for Automatic Inclusion Assessment of Steel
E807: Metallographic Laboratory Evaluation
E883: Reflected-Light Photomicrography
E930: Estimating the Largest Grain Observed in a Metallographic Section (ALA Grain Size)
E975: X-Ray Determination of Retained Austenite in Steel with Near Random Crystallographic Orientation
E986: Scanning Electron Microscope Beam Size Characterization
E1077: Estimating the Depth of Decarburization of Steel Specimens
E1122: Obtaining JK Inclusion Ratings Using Automatic Image Analysis
E1180: Preparing Sulfur Prints for Macrostructural Examination
E1181: Characterizing Duplex Grain Sizes
E1245: Determining the Inclusion or Second-Phase Constituent Content of Metals by Automatic Image Analysis
E1268: Assessing the Degree of Banding or Orientation of Microstructures
E1351: Production and Evaluation of Field Metallographic Replicas
E1382: Determining Average Grain Size Using Semiautomatic and Automatic Image Analysis
E1508: Quantitative Analysis by Energy-Dispersive Spectroscopy
E1558: Electrolytic Polishing of Metallographic Specimens
E1920: Metallographic Preparation of Thermal Spray Coatings
E1951: Calibrating Reticles and Light Microscope Magnifications
E2014: Metallographic Laboratory Safety
E2015: Preparation of Plastics and Polymeric Specimens for Microstructural Examination
F1854: Stereological Evaluation of Porous Coatings on Medical Implants

Normas ASTM para medição de Dureza

B578: Microhardness of Electroplated Coatings
B721: Microhardness and Case Depth of Powder Metallurgy Parts
C730: Knoop Indentation Hardness of Glass
C849: Knoop Indentation Hardness of Ceramic Whitewares
C1326: Knoop Indentation Hardness of Advanced Ceramics
C1327: Vickers Indentation Hardness of Advanced Ceramics
E10: Brinell Hardness of Metallic Materials
E18: Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials
E92: Vickers Hardness of Metallic Materials
E140: Standard Hardness Conversion Tables for Metals
E448: Scleroscope Hardness Testing of Metallic Materials
E1842: Macro-Rockwell Hardness Testing of Metallic Materials

Normas ISO para Metalografia

ISO643: Steels – Micrographic Determination of the Ferritic or Austenitic Grain Size
ISO945: Cast Iron: Designation of Microstructure of Graphite
ISO1083: Spheroidal Graphite Cast Iron – Classification
ISO1463: Metallic and Oxide Coatings – Measurement of Coating Thickness – Microscopical Method
ISO2624: Copper and Copper Alloys – Estimation of Average Grain Size
ISO2639: Steel – Determination and Verification of the Effective Depth of Carburized and Hardened Cases
ISO3754: Steel – Determination of Effective Depth of Hardening After Flame or Induction Hardening
ISO3763: Wrought Steels – Macroscopic Methods for Assessing the Content of Non-Metallic Inclusions
ISO3887: Steel, Non-Alloy and Low Alloy – Determination of Depth of Decarburization
ISO4499: Hardmetals: Metallographic Determination of Microstructure
ISO4524-1: Metallic Coatings – Test Methods for Electrodeposited Gold and Gold Alloy Coatings – Part 1: Determination of Coating Thickness
ISO4964: Steel – Hardness Conversions
ISO4967: Steel – Determination of Content of Non-Metallic Inclusions – Micrographic Method Using Standard Diagrams
ISO4968: Steel – Macrographic Examination by Sulphur Print (Baumann Method)
ISO4970: Steel – Determination of Total or Effective Thickness of Thin Surface-Hardened Layers
ISO5949: Tool Steels and Bearing Steels – Micrographic Method for Assessing the Distribution of Carbides Using Reference Photomicrographs
ISO9042: Steels – Manual Point Counting Method for Statistically Estimating the Volume Fraction of a Constituent with a Point Grid
ISO9220: Metallic Coatings – Measurement of Coating Thickness – Scanning Electron Microscope Method
ISO14250: Steel – Metallographic Characterization of Duplex Grain Size and Distribution

Normas ISO para medição de Dureza

ISO1355: Metallic Materials – Hardness Test – Calibration of Standardized Blocks to be Used for Rockwell Superficial Hardness Testing Machines (Scales 15N, 30N, 45N, 15T, 30T and 45T)
ISO4516: Metallic and Related Coatings – Vickers and Knoop Microhardness Tests
ISO4545: Metallic Materials – Hardness Test – Knoop Test
ISO4546: Metallic Materials – Hardness Test – Verification of Knoop Hardness Testing Machines
ISO4547: Metallic Materials – Hardness Test – Calibration of Standardized Blocks to be Used for Knoop Hardness Testing Machines
ISO6441-1: Paints and Varnishes – Determination of Microindentation Hardness – Part 1: Knoop Hardness by Measurement of Indentation Length
ISO6441-1: Paints and Varnishes – Determination of Microindentation Hardness – Part 2: Knoop Hardness by Measurement of Indentation Depth Under Load
ISO6507-1: Metallic Materials – Hardness Test – Vickers Test – Part 1: HV 5 to HV 100
ISO6507-2: Metallic Materials – Hardness Test – Vickers Test – Part 2: HV 0, 2 to Less Than HV 5
ISO6508: Metallic Materials – Hardness Test – Rockwell Test (Scales A, B, C, D, E, F, G, H, K)
ISO9385: Glass and Glass-Ceramics – Knoop Hardness Test
ISO10250: Metallic Materials – Hardness Testing – Tables of Knoop Hardness Values for Use in Tests Made on Flat Surfaces
ISO14271: Vickers Hardness Testing of Resistance Spot, Projection and Seam Welds (low load and microhardness)

Outras Normas Internacionais

França

NFA04-10: Determination of the Ferritic and Austenitic Grain Size of Steels

Alemanha

DIN50150: Testing of Steel and Cast Steel; Conversion Table for Vickers Hardness, Brinell Hardness, Rockwell Hardness and Tensile Strength
DIN50192: Determination of the Depth of Decarburization
DIN50600: Testing of Metallic Materials; Metallographic Micrographs; Picture Scales and Formats
DIN50601: Metallographic Examination; Determination of the Ferritic or Austenitic Grain Size
DIN50602: Metallographic Examination; Microscopic Examination of Special Steels Using Standard Diagrams to Assess the Content of Non-Metallic Inclusions
SEP1510: Microscopic Test of Steels for Grain Size by Comparison with Standard Charts
SEP1570: Microscopical Examination of Special Steels for Non-Metallic Inclusions Using Standard Micrograph Charts
SEP1572: Microscopic Testing of Free-Cutting Steels for Non-Metallic Sulphide Inclusions by Means of a Series of Pictures

Itália

UNI3137: Extraction and Preparation of Samples
UNI3138: Macrographic Analysis
UNI3245: Microscopic Examination of Ferrous Materials - Determination of Austenitic or Ferritic Grain Size of Plain Carbon and Low-Alloy Steels
UNI4227: Determination of Metallographic Structures
UNI4389: Nonferrous Metals and Their Alloys: Determination of the Dimension of Their Crystal Grains

Japão

JISB7724: Brinell Hardness – Verification of Testing Machine
JISB7725: Vickers Hardness – Verification of Testing Machines
JISB7730: Rockwell Hardness Test – Calibration of Standardized Blocks
JISB7734: Knoop Hardness Test – Verification of Testing Machines
JISB7735: Vickers Hardness Test – Calibration of the Reference Blocks
JISB7736: Brinell Hardness Test – Calibration of Standardized Blocks
JISG0551: Methods of Austenite Grain Size Test for Steel
JISG0552: Method of Ferrite Grain Size Test for Steel
JISG0553: Macrostructure Detecting Method for Steel, Edition 1
JISH0501: Methods for Estimating Average Grain Size of Wrought Copper and Copper Alloys
JISR1610: Testing Method for Vickers Hardness of High Performance Ceramics
JISR1623: Test Method for Vickers Hardness of Fine Ceramics at Elevated Temperatures
JISZ2243: Brinell Hardness Test – Test Method
JISZ2244: Vickers Hardness Test – Test Method
JISZ2245: Rockwell Hardness Test – Test Method
JISZ2251: Knoop Hardness Test – Test Method
JISZ2252: Test Methods for Vickers Hardness at Elevated Temperatures

Polónia

PN-57/H-04501: Macroscopic Examination of Steel. The Deep Etching Test.
PN-61/H-04502: Reagents for Macrostructure Tests of Iron Alloys
PN-61/H-04503: Reagents for Microstructure Tests of Iron Alloys
PN-63/H-04504: Microstructure Testing of Steel Products. Iron Carbide. Ghost Structure. Widmanstätten's Structure.
PN-66/H-04505: Microstructure of Steel Products. Templates and Evaluation.
PN-75/H-04512: Nonferrous Metals. Reagents for Revealing Microstructure.
PN-75/H-04661: Gray, Spheroidal Graphite and Malleable Cast Iron. Metallographic Examination. Evaluation of Microstructure
PN-76/H-04660: Cast Steel and Iron. Microscopic Examination. Sampling and Preparation of Test Pieces.
PN-84/H-04507/01: Metals. Metallographic Testing of Grain Size. Microscopic Methods for Determination of Grain Size.
PN-84/H-04507/02: Metals. Metallographic Testing of Grain Size. Methods of Revealing the Prior-Austenitic Grains in Non-Austenitic Steels.
PN-84/H-04507/03: Metals. Metallographic Testing of Grain Size. Macroscopic Method of Revealing the Prior-Austenitic Grain Size by the Fracture Method.
PN-84/H-04507/04: Metals. Metallographic Testing of Grain Size. A Method of Testing for Overheating of Steel.
PN-87/H-04514: Steel, Cast Steel, Cast Iron. Macrostructure Examination. Baumann's Test.

Russia

GOST801: Standard for Ball and Roller Bearing Steel
GOST1778: Metallographic Methods of Determination of Nonmetallic Inclusions
GOST5639: Grain Size Determination

Suécia

SIS111101: Estimating the Average Grain Size of Metals
SIS111102: Estimating the Austenitic Grain Size of Ferritic and Martensitic Steels
SIS111111: Methods for Assessing the Slag Inclusion Content in Steel: Microscopic Methods
SIS111114: Determination of Slag Inclusions – Microscopic Methods – Manual Representation
SIS111116: Steel – Method for Estimation of the Content of Non-Metallic Inclusions – Microscopic Methods – Jernkontoret's Inclusion Chart II for the Assessment of Non-Metallic Inclusions
SIS110340: Hardness Test – Vickers Test HV 0, 2 to HV 100 – Direct Verification of Testing Machines
SIS1103 41: Hardness Test – Vickers Test HV 0,2 to HV 100 – Indirect Verification of Testing Machines Using Standardized Blocks
SIS1103 42: Hardness Test – Vickers Test HV 0,2 to HV 100 – Direct Verification of Standardizing Machine for Calibration of Standardized Blocks
SIS110343: Hardness Test – Vickers Test HV 0,2 to HV 100 – Calibration of Standardized Blocks
SIS112516: Metallic Materials – Hardness Test – Vickers Test HV 5 to HV 100

SIS112517: Metallic Materials – Hardness Test – Vickers Test HV 0,2 to Less Than HV 5
SIS117020: Determination of the Depth of Decarburization in Steel

Inglaterra

BS860: Tables for Comparison of Hardness Scales.
BS4490: Methods for Micrographic Determination of the Grain Size of Steel
BS5710: Macroscopic Assessment of the Non-Metallic Inclusion Content of Wrought Steels
BS6285: Macroscopic Assessment of Steel by Sulphur Print
BS6286: Measurement of Total or Effective Thickness of Thin Surface-Hardened Layers in Steel
BS6479: Determination and Verification of Effective Depth of Carburized and Hardened Cases in Steel
BS6481: Determination of Effective Depth of Hardening of Steel after Flame or Induction Hardening
BS6533: Macroscopic Examination of Steel by Etching with Strong Mineral Acids
BS6617: Determination of Decarburisation in Steel