BS EN ISO 1460:2020



BSI Standards Publication

Metallic coatings — Hot dip galvanized coatings on ferrous materials — Gravimetric determination of the mass per unit area

National foreword

This British Standard is the UK implementation of EN ISO 1460:2020. It is identical to ISO 1460:2020. It supersedes BS EN ISO 1460:1995, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee STI/34, Hot dip galvanized coatings.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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English Version

Metallic coatings - Hot dip galvanized coatings on ferrous materials - Gravimetric determination of the mass per unit area (ISO 1460:2020)

Revêtements métalliques - Revêtements de galvanisation à chaud sur métaux ferreux - Détermination gravimétrique de la masse par unité de surface (ISO 1460:2020)

Metallische Überzüge - Feuerverzinken auf Eisenwerkstoffen - Gravimetrisches Verfahren zur Bestimmung der flächenbezogenen Masse (ISO 1460:2020)

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European foreword

This document (EN ISO 1460:2020) has been prepared by Technical Committee ISO/TC 107 "Metallic and other inorganic coatings" in collaboration with Technical Committee CEN/TC 262 “Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys” the secretariat of which is held by BSI.

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Endorsement notice

The text of ISO 1460:2020 has been approved by CEN as EN ISO 1460:2020 without any modification.

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 4, *Hot dip coatings (galvanized, etc.)*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 262*, Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 1460:1992), which has been technically revised. The main changes compared with the previous edition are as follows:

— the density of concentrated hydrochloric acid in Clause 5 has been modified from ρ = 1,19 g/ml to $\rho \geq$ 1,18 g/ml.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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INTERNATIONAL STANDARD ISO 1460:2020(E)

Metallic coatings — Hot dip galvanized coatings on ferrous materials — Gravimetric determination of the mass per unit area

1 Scope

This document specifies a method of determining the mass per unit area of hot dip galvanized coatings on ferrous materials.

Since an exact knowledge of the area of the surface is essential, this document is mainly applicable to shapes whose areas are easy to determine. If, with heavy samples, the specifications of Clause 7 cannot be met, then the hot dip galvanized coating mass is determined by another method.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Principle

The hot dip galvanized coating on a surface of known area is dissolved in inhibited acid and the resultant loss in mass is determined by weighing the sample before and after the coating is dissolved.

5 Stripping solution

Dissolve 3,5 g of hexamethylenetetramine in 500 ml of concentrated hydrochloric acid ($\rho \geq 1{,}18$ g/ml). Dilute this solution to 1 000 ml with distilled water.

6 Sampling

The method of sampling shall be agreed between the interested parties.

7 Procedure

Where necessary, the sample shall be degreased with an organic solvent that does not attack the hot dip galvanized coating and then dried.

Before stripping, the sample shall be weighed to an accuracy better than 1 % of the presumed coating mass.

The quantity of solution shall be measured so that at least 10 ml of solution are available for each square centimetre of the surface of the sample. The sample shall be completely immersed in the solution

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