Irish Standard
I.S. EN ISO 9539:2010&A1:2013

Gas welding equipment - Materials for equipment used in gas welding, cutting and allied processes (ISO 9539:2010)

I.S. EN ISO 9539:2010&A1:2013

Incorporating amendments/corrigenda/National Annexes issued since publication:

EN ISO 9539:2010/A1:2013

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Údarás um Chaighdeáin Náisiúnta na hÉireann

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 9539:2010/A1

December 2013

ICS 25.160.30

English Version

Gas welding equipment - Materials for equipment used in gas welding, cutting and allied processes (ISO 9539:2010/AMD 1:2013)

Matériel de soudage aux gaz - Matériaux utilisés pour le matériel de soudage aux gaz, coupage et techniques connexes (ISO 9539:2010/AMD 1:2013)

Gasschweißgeräte - Werkstoffe für Geräte für Einrichtungen zum Gasschweißen, Schneiden und verwandte Prozesse - Änderung 1 (ISO 9539:2010/AMD 1:2013)

This amendment A1 modifies the European Standard EN ISO 9539:2010; it was approved by CEN on 9 November 2013.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN ISO 9539:2010/A1:2013) has been prepared by Technical Committee ISO/TC 44 “Welding and allied processes” in collaboration with Technical Committee CEN/TC 121 “Welding” the secretariat of which is held by DIN.

This Amendment to the European Standard EN ISO 9539:2010 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2014, and conflicting national standards shall be withdrawn at the latest by June 2014.

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Endorsement notice

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EUROPEAN STANDARD

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Gasschweißgeräte - Werkstoffe für Geräte für Einrichtungen zum Gasschweißen, Schneiden und verwandte Prozesse (ISO 9539:2010)

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Endorsement notice

The text of ISO 9539:2010 has been approved by CEN as a EN ISO 9539:2010 without any modification.

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INTERNATIONAL STANDARD

ISO 9539

Second edition
2010-01-15

Gas welding equipment — Materials for equipment used in gas welding, cutting and allied processes

Matériel de soudage aux gaz — Matériaux utilisés pour le matériel de soudage aux gaz, coupage et techniques connexes

Reference number
ISO 9539:2010(E)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 9539 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 8, *Equipment for gas welding, cutting and allied processes*.

This second edition cancels and replaces the first edition (ISO 9539:1988) which has been technically revised.

Requests for official interpretations of any aspect of this International Standard should be directed to the Secretariat of ISO/TC 44/SC 8 via your national standards body, a complete listing of which can be found at http://www.iso.org.

Gas welding equipment — Materials for equipment used in gas welding, cutting and allied processes

1 Scope

This International Standard specifies the general, and some of the special, requirements on materials used for the construction of equipment used in gas welding, cutting and allied processes.

Additional requirements on materials for some equipment are given in other standards. This International Standard is not applicable to materials used for the construction of welding hoses which are specified in ISO 3821.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 554, *Standard atmospheres for conditioning and/or testing — Specifications*

ISO 1817, *Rubber, vulcanized — Determination of the effect of liquids*

3 General requirements

Materials liable to come into contact with the process gases shall be resistant to the chemical, mechanical and thermal action of these gases under all operating conditions (see for example ISO 11114-1 and ISO 11114-2).

The properties of the materials shall be such that the function for which they are intended can be performed correctly within the temperature range of −20 °C to +60 °C.

Where dissimilar materials are in direct contact, steps shall be taken to prevent corrosion.

4 Specific requirements

4.1 Metallic materials

4.1.1 For use with acetylene and gases with similar chemical properties

Because of the risk of forming explosive acetylides, the copper content of materials liable to come into contact with such gases shall not exceed 70 % (mass fraction). The manufacturer shall not use any procedure resulting in copper enrichment of the surface. Nozzles and necks of blowpipes are an exception to this requirement.

NOTE International and national regulations may require different maximum copper contents than those specified here, but these remain generally within this range. The likelihood of the formation of copper acetylides depends on metallic corrosion and contamination which can be caused by many factors, e.g. moisture.