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GAS WELDING EQUIPMENT - RUBBER HOSES FOR WELDING, CUTTING AND ALLIED PROCESSES

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EUROPEAN STANDARD

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Gas welding equipment - Rubber hoses for welding, cutting and allied processes

Matériel de soudage aux gaz - Tuyaux souples en caoutchouc pour le soudage, le coupage et les techniques connexes

Gasschweißgeräte - Gummischläuche für Schweißen, Schneiden und verwandte Prozesse

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Foreword

This document (EN 559:2003) has been prepared by Technical Committee CEN/TC 121, "Welding", the secretariat of which is held by DS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2003, and conflicting national standards shall be withdrawn at the latest by October 2003.

This document supersedes EN 559:1994.

Annexes A, B, C and D are normative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies requirements for rubber hoses, including twin hoses and fluxed fuel gas hoses for welding, cutting and allied processes. The term "allied processes" means, in particular, heating, brazing and metallization.

This standard specifies requirements for rubber hoses for normal duty up to 2 MPa (20 bar) and light duty [limited to hoses for maximum operating pressure up to 1 MPa (10 bar) and with nominal bore less than or equal to 6,3 mm].

This standard pertains to hoses operated at temperatures - 20 °C to + 60 °C.

Thermoplastic hoses specified in EN 1327 are excluded from this standard.

Different colours and markings are specified for identification of the gas.

NOTE If hoses for liquefied petrol gases are used without regulators the use of light duty rubber hoses is not allowed.

This standard applies to hoses used in:

— gas welding and cutting;

— arc welding under the protection of an inert or active gas;

— processes allied to welding and cutting;

and assembled according to EN 1256.

Hose connections for the manufacture of hose lines see EN 560.

This standard does not apply to hoses used for high pressure acetylene [more than 0,15 MPa (1,5 bar)].

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2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 1256, *Gas welding equipment — Specification for hose assemblies for equipment for welding, cutting and allied processes.*

EN 1327, *Gas welding equipment — Thermoplastic hoses for welding and allied processes.*

EN ISO 1307:1995, *Rubber and plastics hoses for general-purpose industrial applications - Bore diameters and tolerances, and tolerances on length (ISO 1307:1992).*

EN ISO 1402, *Rubber and plastics hoses and hose assemblies — Hydrostatic testing (ISO 1402: 1994).*

EN ISO 1746, *Rubber or plastics hoses and tubing - Bending tests (ISO 1746:1998, including technical corrigendum 1:1999).*

EN ISO 4080, *Rubber and plastic hoses and hose assemblies — Determination of permeability to gas (ISO 4080: 1991).*

EN ISO 4671, *Rubber and plastics hose and hose assemblies — Methods of measurement of dimensions (ISO 4671:1999).*

EN ISO 4672:1999, *Rubber and plastics hoses — Sub-ambient temperature flexibility tests (ISO 4672:1997).*

EN ISO 8330:2000, *Rubber and plastics hoses and hose assemblies - Vocabulary (ISO 8330:1998)*.

EN 27326:1993, *Rubber and plastics hoses — Assessment of ozone resistance under static conditions (ISO 7326:1991).*

EN 28033:1993, *Rubber and plastics hose — Determination of adhesion between components (ISO 8033:1991).*

EN ISO 11114-3, *Transportable gas cylinders — Compatibility of cylinder and valve materials with gas contents — Part 3: Autogenous ignition test in oxygen atmosphere (ISO 11114-3:1997).*

ISO 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties.*

ISO 188, *Rubber, vulcanized or thermoplastic — Accelerated ageing or heat-resistance tests.*

ISO 471, *Rubber — Temperatures, humidities and times for conditioning and testing.*

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

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN ISO 8330:2000 and the following apply.

3.1
twin hoses
two normal rubber hoses joined together longitudinally

3.2
all fuel gas hoses
hoses which can be used for all the fuel gases given in Table 4 except fluxed fuel gas

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