

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

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 3821:2010 sisaldab Euroopa standardi EN ISO 3821:2010 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 31.05.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 24.03.2010.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 3821:2010 consists of the English text of the European standard EN ISO 3821:2010.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.05.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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The standard is available from Estonian standardisation organisation.

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English Version

Gas welding equipment - Rubber hoses for welding, cutting and allied processes (ISO 3821:2008)

Matériel de soudage aux gaz - Tuyaux souples en caoutchouc pour le soudage, le coupage et les techniques connexes (ISO 3821:2008)

Gasschweißgeräte - Gummischläuche für Schweißen, Schneiden und verwandte Prozesse (ISO 3821:2008)

This European Standard was approved by CEN on 21 February 2010.

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## Foreword

The text of ISO 3821:2008 has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 3821:2010 by Technical Committee CEN/TC 121 "Welding" the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by September 2010, and conflicting national standards shall be withdrawn at the latest by September 2010.

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### Endorsement notice

The text of ISO 3821:2008 has been approved by CEN as a EN ISO 3821:2010 without any modification.

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# Gas welding equipment — Rubber hoses for welding, cutting and allied processes

## 1 Scope

This International Standard specifies requirements for rubber hoses (including twin hoses) for welding, cutting and allied processes.

This International Standard specifies requirements for rubber hoses for normal duty of 2 MPa (20 bar) and light duty [limited to hoses for maximum working pressure of 1 MPa (10 bar) and with bore up to and including 6,3 mm].

This International Standard applies to hoses operated at temperatures  $-20\text{ }^{\circ}\text{C}$  to  $+60\text{ }^{\circ}\text{C}$  and used in:

- gas welding and cutting;
- arc welding under the protection of an inert or active gas;
- processes allied to welding and cutting, in particular, heating, brazing, and metallization.

This International Standard applies neither to thermoplastics hoses nor to hoses used for high pressure [ $>0,15\text{ MPa}$  ( $>1,5\text{ bar}$ )] acetylene.

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

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

ISO 1307:2006, *Rubber and plastics hoses — Hose sizes, minimum and maximum inside diameters, and tolerances on cut-to-length hoses*

ISO 1402, *Rubber and plastics hoses and hose assemblies — Hydrostatic testing*

ISO 1746, *Rubber or plastics hoses and tubing — Bending tests*

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

ISO 4080, *Rubber and plastics hoses and hose assemblies — Determination of permeability to gas*

ISO 4671, *Rubber and plastics hoses and hose assemblies — Methods of measurement of the dimensions of hoses and the lengths of hose assemblies*

ISO 4672:1997, *Rubber and plastics hoses — Sub-ambient temperature flexibility tests*

ISO 7326:2006, *Rubber and plastics hoses — Assessment of ozone resistance under static conditions*

ISO 8033:2006, *Rubber and plastics hoses — Determination of adhesion between components*

ISO 8330, *Rubber and plastics hoses and hose assemblies — Vocabulary*

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

ISO 23529, *Rubber — General procedures for preparing and conditioning test pieces for physical test methods*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 8330 and the following apply.

#### 3.1

##### **twin hose**

two normal rubber hoses joined together longitudinally

#### 3.2

##### **universal fuel gas hose**

hoses which can be used for all fuel gases except fluxed fuel gas

NOTE Fuel gases are listed in Table 4.

#### 3.3

##### **flux fuel gas hose**

hose suitable for fuel gas containing a flux

### 4 Abbreviated terms

For the purposes of this document, the following abbreviations apply.

LPG liquefied petroleum gases

MPS methylacetylene-propadiene mixtures

### 5 Application

Hoses shall only be used for the gas service for which they are identified (see 10.2).

### 6 Hose designation

The hoses covered by this International Standard are designated using the following information:

- a) nominal bore, see Table 1;
- b) light or normal duty (pressure rating), see Table 3;
- c) colour and marking (gas service), see Table 4.

EXAMPLE 1 6,3 mm, light duty.

EXAMPLE 2 10 mm, normal duty.

EXAMPLE 3 6,3 mm, light duty, FLUX.