



National Standards Authority of Ireland

IRISH STANDARD

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ICS 83.060  
83.140.50

**ELASTOMERS FOR GAS PRESSURE  
REGULATORS AND ASSOCIATED SAFETY  
DEVICES FOR INLET PRESSURES UP TO  
100 BAR**

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English version

## Elastomers for gas pressure regulators and associated safety devices for inlet pressures up to 100 bar

Elastomères pour régulateurs de pression de gaz et dispositifs de sécurité associés pour pressions amont jusqu'à 100 bar

Elastomere für Gas-Druckregelgeräte und zugehörige Sicherheitseinrichtungen für Eingangsdrücke bis 100 bar

This European Standard was approved by CEN on 15 September 2000.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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**EN 13787:2001 (E)**

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## **Foreword**

This European Standard has been prepared by Technical Committee CEN/TC 235 "Gas pressure regulators and associated safety devices for use in gas transmission and distribution", the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by April 2002, and conflicting national standards shall be withdrawn at the latest by April 2002.

This European Standard includes one informative annex (Annex A) and one normative annex (Annex B related to a special national condition for Sweden).

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## EN 13787:2001 (E)

### 1 Scope

This European Standard specifies the minimum requirements for elastomeric materials intended to be used as static seals, dynamic seals or diaphragms in the gas pressure regulators covered by EN 334 and in the safety devices for gas pressure regulating stations and installations covered by the corresponding European Standards, as well as the relevant test methods to assess these requirements.

This European Standard applies to elastomeric materials for use with gases of the first and second gas families to EN 437, for inlet pressures less than or equal to 100 bar, and in an operating temperature range between  $-10\text{ }^{\circ}\text{C}$ , (or  $-20\text{ }^{\circ}\text{C}$  when applicable), and  $+60\text{ }^{\circ}\text{C}$ .

This European Standard also gives some additional characteristics and recommendations for their application likely to be requested for elastomers in the order specifications, and the corresponding test methods (see informative Annex A).

This European Standard only applies for type testing.

### 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 334, *Gas pressure regulators for inlet pressures up to 100 bar.*

EN 437, *Test gases – Test pressures – Appliance categories.*

EN 549, *Rubber materials for seals and diaphragms for gas appliances and gas equipment.*

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

ISO 48, *Rubber, vulcanized or thermoplastic – Determination of hardness (hardness between 10 IRHD and 100 IRHD).*

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

ISO 815, *Rubber, vulcanized or thermoplastic – Determination of compression set at ambient, elevated or low temperatures.*

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

### 3 Terms and definitions

For the purposes of this European Standard, the following definitions apply:

#### 3.1 static seal

component which ensures a seal between two parts of a gas pressure regulator or parts of its associated safety devices which do not have relative movement ('O' rings, sheet gaskets, etc.)

NOTE Adapted from EN 549.

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