



NSAI
Standards

Irish Standard
I.S. EN 16119:2013

LPG equipment and accessories - Sealing caps and plugs for LPG cylinder and pressure vessel valves - Specification and testing

I.S. EN 16119:2013

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:

This document is based on:
EN 16119:2013

Published:
25 February, 2013

This document was published
under the authority of the NSAI
and comes into effect on:
25 February, 2013

ICS number:
23.060.99

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

ICS 23.060.99

English Version

**LPG equipment and accessories - Sealing caps and plugs for
LPG cylinder and pressure vessel valves - Specification and
testing**

Équipements pour GPL et leurs accessoires - Bouchons et
obturateurs d'étanchéité pour robinets/vannes de bouteilles
et réservoirs - Spécifications et essais

Flüssiggas-Geräte und Ausrüstungsteile - Dichtkappen und
Dichtstopfen für Flaschen und Behälter für Flüssiggas
(LPG) - Spezifikation und Prüfungen

This European Standard was approved by CEN on 7 December 2012.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	6
4 Operating temperatures.....	7
5 Materials	7
5.1 Environmental	7
5.2 General	7
5.3 Metallic materials	7
5.4 Non-metallic materials	8
6 Design.....	8
6.1 General	8
6.2 Threads.....	8
6.3 Leak tightness.....	8
7 Testing and inspection of the design.....	9
7.1 General	9
7.2 LPG resistance.....	9
7.3 Water resistance	9
7.4 Climatic ageing during 168 hours	9
7.5 Hydraulic strength test	10
7.5.1 Reusable sealing caps or plugs	10
7.5.2 Single use sealing caps or plugs	10
7.6 Tightness test.....	10
7.7 Torque Test	10
8 Marking.....	10
9 Documentation.....	11
10 Packaging.....	11
Annex A (normative) Special low temperature requirements for caps or plugs	12
Annex B (normative) Combined aging test.....	13
B.1 General	13
B.2 Ultraviolet light.....	13
B.3 Rain.....	13
Annex C (informative) Environment checklist	16
Bibliography.....	17

Foreword

This document (EN 16119:2013) has been prepared by Technical Committee CEN/TC 286 “Liquefied petroleum gas equipment and accessories”, the secretariat of which is held by NSAI.

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 August 2013, and conflicting national standards shall be withdrawn at the latest by August 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard calls for the use of substances and procedures that may be injurious to health and/or the environment if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations at any stage.

Protection of the environment is a key political issue in Europe and elsewhere. Protection of the environment is taken in a very broad sense. What is meant is the total life cycle aspects of, e.g., a product on the environment, including expenditure of energy and during all phases from mining of raw materials, fabrication, packaging, distribution, use, scrapping, recycling of materials, etc.

NOTE Annex C indicates the clauses in this European Standard that address environmental issues.

Provisions need to be restricted to a general guidance. Limit values are specified in national laws.

It is recommended that manufacturers develop an environmental management policy. For guidance, see the EN ISO 14000 series.

It has been assumed in the drafting of this European Standard that the execution of its provisions is entrusted to appropriately qualified and experienced people.

All pressures are gauge pressures unless otherwise stated.

This European Standard requires measurement of material properties, dimensions and pressures. All such measurements are subject to a degree of uncertainty due to tolerances in measuring equipment etc. It may be beneficial to refer to the leaflet "measurement uncertainty leaflet SP INFO 2000 27 [3].

1 Scope

This European Standard specifies the design, testing and marking requirements for caps and plugs used to form a pressure tight seal with liquefied petroleum gas (LPG) cylinder valves and pressure vessel valves. Sealing caps and plugs provide an additional seal for self-closing and manually operated valves.

Dust caps or plugs and tamper evident seals that do not form an additional seal as part of their design are excluded from the scope of this European Standard.

Cylinder valve caps and plugs may be used with valves for liquid and vapour manufactured in accordance with EN ISO 14245 and EN ISO 15995.

Pressure vessel valve caps and plugs may be used with valves for liquid and vapour manufactured in accordance with EN 13175. Occasional liquid withdrawal valve caps and plugs are excluded from the scope of this European Standard.

Reusable and single use sealing caps and plugs are included in this European Standard.

This European Standard does not exclude the use of other designs that provide an equivalent level of safety.

NOTE The term “pressure vessel” does not include LPG tank vehicles, also called “road tankers”, in CEN/TC 286 standards.

2 Normative references

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

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

EN 751-1, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water — Part 1: Anaerobic jointing compounds*

EN 751-2, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water — Part 2: Non-hardening jointing compounds*

EN 751-3, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water — Part 3: Unsintered PTFE tapes*

EN 12164, *Copper and copper alloys — Rod for free machining purposes*

EN 12165, *Copper and copper alloys — Wrought and unwrought forging stock*

EN 12420, *Copper and copper alloys — Forgings*

EN 13175:2003+A1, *LPG equipment and accessories — Specification and testing for Liquefied Petroleum Gas (LPG) tank valves and fittings*

EN 15202, *LPG equipment and accessories — Essential operational dimensions for LPG cylinder valve outlet and associated equipment connections*

EN ISO 11114-1, *Gas cylinders — Compatibility of cylinder and valve materials with gas contents — Part 1: Metallic materials (ISO 11114-1)*

EN ISO 11114-2, *Transportable gas cylinders — Compatibility of cylinder and valve materials with gas contents — Part 2: Non-metallic materials (ISO 11114-2)*

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-