

STN	Zariadenia a príslušenstvo na LPG Tesniace čiapočky a zátky pre fľaše LPG a ventily tlakových nádob Špecifikácia a skúšanie	STN EN 16119 07 8221
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LPG equipment and accessories - Sealing caps and plugs for LPG cylinder and pressure vessel valves - Specification and testing

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/22

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

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Supersedes EN 16119:2013

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 de bouteilles
et vannes de réservoirs sous pression - Spécifications
et essais

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

This European Standard was approved by CEN on 22 November 2021.

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.

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

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EN 16119:2021 (E)

Contents		Page
European 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	8
5.4	Non-metallic materials	8
6	Design	8
6.1	General	8
6.2	Threads	9
6.3	External leak tightness	9
7	Testing and inspection of the design	9
7.1	General	9
7.2	LPG resistance	9
7.3	Water resistance	10
7.4	Ageing	10
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	Endurance test	10
7.7	Torque Test	11
8	Marking	11
9	Documentation	12
10	Packaging	12
Annex A (normative) Special low temperature requirements for caps or plugs		13
Annex B (normative) Combined ageing test		14
B.1	General	14
B.2	Ultraviolet light	14
B.3	Rain	14
Bibliography		17

European foreword

This document (EN 16119:2021) has been prepared by Technical Committee CEN/TC 286 “LPG 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 June 2022, and conflicting national standards shall be withdrawn at the latest by June 2022.

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

This document supersedes EN 16119:2013.

EN 16119:2021 includes the following significant technical changes with respect to EN 16119:2013:

- Addition of external leak tightness term and definition
- Introduction of requirement for UV resistance
- Parameters for LPG resistance have been tightened
- Introduction of pressure test after endurance test
- Environmental checklist deleted

In this document the unit bar is used, due to its universal use in the gas industry. It should, however, be noted that bar is not an SI unit, and that the corresponding SI unit for pressure is Pa ($1 \text{ bar} = 10^5 \text{ Pa} = 10^5 \text{ N/m}^2$).

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 16119:2021 (E)**Introduction**

This document 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.

It is recommended that companies using this document develop an environmental management policy. For guidance see ISO 14000 series.

Protection of the environment is a key political issue in Europe and elsewhere. For TC 286 this is covered in CEN/TS 16765 [4] LPG equipment and accessories - Environmental considerations for CEN/TC 286 standards, and this Technical Specification should be read in conjunction with this document. The Technical Specification provides guidance on the environmental aspects to be considered regarding equipment and accessories produced for the LPG industry and the following is addressed:

- a) design;
- b) manufacture;
- c) packaging;
- d) use and operation; and
- e) disposal.

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

All pressures are gauge pressures unless otherwise stated.

This document 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 document 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.

Protection caps or dust caps and tamper evident seals that do not form an additional seal as part of their design are excluded from the scope of this document.

Cylinder valve caps and plugs can 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 can 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 document.

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

This document 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 are referred to in the text in such a way that some or all of their content constitutes requirements 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.

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

EN 16119:2021 (E)

EN ISO 14021, *Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) (ISO 14021)*

EN ISO 14024, *Environmental labels and declarations - Type I environmental labelling - Principles and procedures (ISO 14024)*

EN ISO 14025, *Environmental labels and declarations - Type III environmental declarations - Principles and procedures (ISO 14025)*

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