



DPC: 25/30507081 DC

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Date: 06 November 2025

Origin: European

Latest date for receipt of comments: 30 December 2025

Project No. 2025/00007

Responsible committee: PRI/66 Rubber and plastics tubing, hoses and hose assemblies

Interested committees:

Title: Draft BS EN 1762 Rubber hoses and hose assemblies for liquefied petroleum gas, LPG (liquid or gaseous phase), and natural gas up to 25 bar (2,5 MPa) - Specification.

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Full document details: 25/30507081 DC

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

English Version

Rubber hoses and hose assemblies for liquefied petroleum gas, LPG (liquid or gaseous phase), and natural gas up to 25 bar (2,5 MPa) - Specification

Tuyaux et flexibles en caoutchouc pour le gaz de pétrole liquéfié GPL (en phase liquide ou gazeuse) et le gaz naturel jusqu'à 25 bar (2,5 MPa) - Spécification

Gummischläuche und -schlauchleitungen für Flüssiggas LPG (flüssig oder gasförmig) und Erdgas bis 25 bar (2,5 MPa) - Spezifikation

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 218.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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European foreword

This document (prEN 1762:2025) has been prepared by Technical Committee CEN/TC 218 “Rubber and plastics hoses and hose assemblies”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 1762:2018.

prEN 1762:2025 includes the following significant technical changes with respect to EN 1762:2018:

- a) extension of the material of the lining material
- b) additional dimensions added in Table 1 and Table 2
- c) revision of routine tests
- d) in Clause 11, the requirement to include the year of publication of this document in the marking has been deleted
- e) water has been added as a test fluid in Annex A
- f) the document has been editorially revised.

1 Scope

This document specifies the requirements for rubber hoses and rubber hose assemblies used for the transfer of liquefied petroleum gas (LPG) in liquid or gaseous phase and natural gas with a maximum working pressure of 25 bar (2,5 MPa) and vacuum within the temperature range of -30 °C to +70 °C and, when designated -LT, -50 °C to +70 °C.

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

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

EN ISO 6179, *Rubber, vulcanized or thermoplastic — Rubber sheets and rubber-coated fabrics — Determination of transmission rate of volatile liquids (gravimetric technique)*

EN ISO 7233, *Rubber and plastics hoses and hose assemblies — Determination of resistance to vacuum*

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

EN ISO 8031, *Rubber and plastics hoses and hose assemblies — Determination of electrical resistance and conductivity*

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

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

EN ISO 10619-1, *Rubber and plastics hoses and tubing — Measurement of flexibility and stiffness — Part 1: Bending tests at ambient temperature*

EN ISO 10619-2, *Rubber and plastics hoses and tubing — Measurement of flexibility and stiffness — Part 2: Bending tests at sub-ambient temperatures*

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 1817, *Rubber, vulcanized or thermoplastic — Determination of the effect of liquids*

ISO 4649, *Rubber, vulcanized or thermoplastic — Determination of abrasion resistance using a rotating cylindrical drum device*

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

electrically bonded hose/hose assembly

hose/hose assembly that uses a metallic wire connection to conduct static electricity

3.2

electrically conductive hose/hose assembly

hose/hose assembly that is capable of conducting static electrical charges, using a conductive rubber layer, without the use of a metallic wire

3.3

electrically discontinuous hose/hose assembly

hose/hose assembly that incorporates a metallic wire connection to one end fittings of the assembly only or is electrically insulated from both end-fittings

4 Classification

Hoses/hose assemblies for this application are classified into 5 types and 3 grades according to their use, construction, and electrical properties. The maximum working pressure for all hoses/hose assemblies is 25 bar.

The 5 types are as follows:

Type	Application
D	delivery hose
D-LT	delivery hose, low temperature;
SD	suction and delivery hose, helix reinforced
SD-LTS	suction and delivery hose “smooth hose”, helix reinforced, low temperature
SD-LTR	suction and delivery hose, rough bore (having an internal, non-embedded helical wire of stainless steel), low temperature

Hoses for this application are divided into 3 grades according to their electrical properties:

Grade designation	Electrical property
M	Electrically bonded
Ω	Electrically conductive using a conductive rubber layer
Discontinuous	Electrically discontinuous

5 Materials and construction

5.1 Hose

The hose shall consist of the following:

- a lining resistant to n-pentane;
- a reinforcement of layers of woven, braided or spirally wound textile material or braided or spirally wound stainless steel wire,
- an embedded stainless steel metallic helix reinforcement (types SD, SD-LTS and SD-LTR only);
- two or more low resistance electrical bonding wires (grade “M” only);
- an outer cover of black or coloured synthetic rubber, resistant to abrasion and outdoor exposure; the cover may be pricked to allow gas permeation. If the cover is not pricked a comparative measurement of permeation between the rubber materials of cover and lining shall be carried out, see Table 3, item 6;
- an internal, non-embedded stainless steel helical wire, suitable for use at $-50\text{ }^{\circ}\text{C}$ (type SD-LTR only).

5.2 Hose assemblies

Hose assemblies shall incorporate metallic fittings attached to the hose by the assembler or built in by the manufacturer. In order to produce the required electrical properties, the fittings should be attached in accordance with Clause 8.

Chlorinated materials shall not be used in contact with any stainless steel materials.

6 Dimensions

6.1 Nominal bore, internal diameters, outside diameters, tolerances, and minimum bend radius

For hoses without built-in couplings, and when measured in accordance with method A of EN ISO 4671, the internal diameter and outside diameter and their tolerances shall conform to Table 1 or Table 2, depending on the type.

For hoses with built-in couplings, the outside diameters in Tables 1 and 2 do not apply.

When tested by the method described in EN ISO 10619-1, the value of the minimum bend radius shall be as given in Table 1 or Table 2, depending on the type.