



BSI Standards Publication

Rubber hoses and hose assemblies — Wire- or textile-reinforced single-pressure types for hydraulic applications — Specification

National foreword

This British Standard is the UK implementation of EN ISO 18752:2025. It is identical to ISO 18752:2025. It supersedes BS EN ISO 18752:2022, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/66, Rubber and plastics tubing, hoses and hose assemblies.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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English Version

**Rubber hoses and hose assemblies - Wire- or textile-
reinforced single-pressure types for hydraulic applications
- Specification (ISO 18752:2025)**

Tuyaux et flexibles en caoutchouc - Types hydrauliques
à pression unique, avec armature de fils métalliques ou
textiles tressés - Spécifications (ISO 18752:2025)

Gummischläuche und -schlauchleitungen- Draht- oder
textilverstärkte Einzeldrucktypen für hydraulische
Anwendungen- Spezifikation (ISO 18752:2025)

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European foreword

This document (EN ISO 18752:2025) has been prepared by Technical Committee ISO/TC 45 "Rubber and rubber products" in collaboration with Technical Committee CEN/TC 218 "Rubber and plastics hoses and hose assemblies" the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by January 2026, and conflicting national standards shall be withdrawn at the latest by January 2026.

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 ISO 18752:2022.

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Endorsement notice

The text of ISO 18752:2025 has been approved by CEN as EN ISO 18752:2025 without any modification.

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Classification	2
4.1 Classes	2
4.2 Grades and types	3
5 Materials and construction	3
5.1 Hoses	3
5.2 Hose assemblies	4
6 Dimensions and tolerances	4
6.1 Diameters	4
6.2 Cover thickness	6
6.3 Concentricity	6
6.4 Length	6
7 Physical properties	7
7.1 Fluid resistance of rubber compounds	7
7.1.1 Test pieces	7
7.1.2 General	7
7.1.3 Oil resistance	7
7.1.4 Water-based fluid resistance	7
7.1.5 Water resistance	7
7.2 Performance requirements	8
7.2.1 Hydrostatic requirements	8
7.2.2 Change in length	8
7.2.3 Minimum bend radius	8
7.2.4 Resistance to impulse	10
7.2.5 Leakage of hose assemblies	10
7.2.6 Cold flexibility	10
7.2.7 Adhesion between components	10
7.2.8 Vacuum resistance	10
7.2.9 Ozone resistance	11
7.2.10 Abrasion resistance	11
8 Frequency of testing	11
9 Marking	11
9.1 Hoses	11
9.2 Hose assemblies	12
10 Recommendations for packaging and storage	12
11 Information by hose manufacturer	12
12 Test report	12
Annex A (normative) Test frequency for type tests and routine tests	13
Annex B (informative) Information to be provided by hose manufacturer	15
Bibliography	16

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 1, *Rubber and plastics hoses and hose assemblies*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 218, *Rubber and plastics hoses and hose assemblies*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fifth edition cancels and replaces the fourth edition (ISO 18752:2022), which has been technically revised.

The main changes are as follows:

- addition of [Subclause 7.1.2](#) in order to align the document with the fluid immersion requirements of ISO 1817;
- revision of [Clause 8](#);
- deletion of [Annex B](#).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Rubber hoses and hose assemblies — Wire- or textile-reinforced single-pressure types for hydraulic applications — Specification

1 Scope

This document specifies requirements for ten classes, four grades and seven types of wire- or textile-reinforced hydraulic hoses and hose assemblies, of nominal sizes ranging from 5 to 102. Each class has a single maximum working pressure for all sizes.

They are suitable for use with:

- oil-based hydraulic fluids HH, HL, HM, HR and HV, as defined in ISO 6743-4, at temperatures ranging from $-40\text{ }^{\circ}\text{C}$ to $+100\text{ }^{\circ}\text{C}$ for types AS, AC, BS and BC hoses and from $-40\text{ }^{\circ}\text{C}$ to $+120\text{ }^{\circ}\text{C}$ for types CS, CC and DC hoses;
- water-based fluids HFC, HFAE, HFAS and HFB, as defined in ISO 6743-4, at temperatures ranging from $-40\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$;
- water at temperatures ranging from $0\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$.

This document does not specify requirements for the connection ends. It is limited to the performance of hoses and hose assemblies. The hose assembly maximum working pressure is governed by the lowest maximum working pressure of the components.

NOTE It is the responsibility of the user, in consultation with the hose manufacturer, to establish the compatibility of the hose with the fluid to be used.

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.

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

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

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

ISO 6803, *Rubber or plastics hoses and hose assemblies — Hydraulic-pressure impulse test without flexing*

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

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

ISO 8033:2016, *Rubber and plastics hoses — Determination of adhesion between components*

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

ISO 10619-1:2017, *Rubber and plastics hoses and tubing — Measurement of flexibility and stiffness — Part 1: Bending tests at ambient temperature*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 8330 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/>

4 Classification

4.1 Classes

Ten classes of hose are specified, distinguished by their maximum working pressure, as shown in [Table 1](#). Each class may be manufactured in up to 14 nominal sizes.

Table 1 — Classes and nominal sizes

Class	35	70	140	210	250	280	350	420	490	560
MWP ^a (MPa)	3,5	7	14	21	25	28	35	42	49	56
MWP ^a (bar)	35	70	140	210	250	280	350	420	490	560
Nominal size										
5	X	X	X	X	X	X	X	X	N/A	N/A
6,3	X	X	X	X	X	X	X	X	N/A	N/A
8	X	X	X	X	X	X	X	X	N/A	N/A
10	X	X	X	X	X	X	X	X	N/A	N/A
12,5	X	X	X	X	X	X	X	X	N/A	N/A
16	X	X	X	X	X	X	X	X	X	X
19	X	X	X	X	X	X	X	X	X	X
25	X	X	X	X	X	X	X	X	X	X
31,5	X	X	X	X	X	X	X	X	X	X
38	X	X	X	X	X	X	X	X	N/A	N/A
51	X	X	X	X	X	X	X	X	N/A	N/A
63	X	X	X	X	X	X	X	N/A	N/A	N/A
76	X	X	X	N/A	N/A	N/A	N/A	N/A	N/A	N/A
102	X	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
X = Applicable; N/A = Not applicable.										
^a Maximum working pressure.										