
**Rubber and plastics hoses, non-
collapsible, for fire-fighting service —**

Part 2:
**Semi-rigid hoses (and hose
assemblies) for pumps and vehicles**

*Tuyaux en caoutchouc et en plastique, non aplatissables, pour la lutte
contre l'incendie —*

Partie 2: Tuyaux (et flexibles) semi-rigides pour pompes et véhicules



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Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Classification	2
4.1 General.....	2
4.2 Classification by types (hose construction).....	2
4.3 Classification by class (materials for lining and cover).....	2
4.4 Classification by category.....	3
5 Dimensions, tolerances and maximum mass	3
5.1 Inside diameter and maximum mass.....	3
5.2 Length and tolerances on length.....	3
5.3 Concentricity.....	4
6 Performance requirements of finished hose	4
6.1 Hydrostatic requirements.....	4
6.1.1 Deformation under maximum working pressure.....	4
6.1.2 Deformation under proof pressure.....	4
6.1.3 Minimum burst pressure.....	4
6.1.4 Kink pressure.....	4
6.2 Adhesion.....	4
6.3 Accelerated ageing.....	5
6.4 Abrasion resistance.....	5
6.4.1 General.....	5
6.4.2 Abrasion resistance of class 5 and class 6 hoses.....	5
6.4.3 Abrasion resistance of classes 1, 2, 3 and 4 hoses.....	5
6.5 Low temperature flexibility.....	5
6.6 Hot surface resistance.....	5
6.7 Ozone resistance.....	6
6.8 Bending and crush resistance.....	6
6.9 UV resistance (xenon arc lamp).....	6
6.10 Loss in mass on heating.....	6
6.11 Deformation under crushing (type C only).....	6
6.12 Hose assemblies.....	6
7 Frequency of testing	6
8 Type tests	7
9 Test report	7
10 Recommendation for packaging and storage	7
11 Marking	7
Annex A (normative) Kink pressure test	8
Annex B (normative) Accelerated ageing test	9
Annex C (normative) Surface abrasion resistance test	10
Annex D (normative) Point abrasion resistance test	12
Annex E (normative) Hot surface resistance test	15
Annex F (normative) Bending and crush resistance test	20
Annex G (normative) Deformation under crushing test	22

Annex H (normative) Adhesion test (lay-flat fire-fighting hoses)	24
Annex I (normative) Test for fire-fighting hose assemblies	26
Annex J (normative) Type test and routine test	27
Annex K (informative) Production tests	28
Bibliography	29

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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 documents 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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 1, *Rubber and plastics hoses and hose assemblies*.

This second edition cancels and replaces the first edition (ISO 4642-2:2009), of which it constitutes a minor revision.

ISO 4642 consists of the following parts, under the general title *Rubber and plastics hoses, non-collapsible, for fire-fighting service*:

- *Part 1: Semi-rigid hoses for fixed systems*
- *Part 2: Semi-rigid hoses (and hose assemblies) for pumps and vehicles*

Introduction

This part of ISO 4642 is mainly concerned with fire service semi-rigid delivery hoses and incorporates those hoses used manually to control and extinguish fires.

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Rubber and plastics hoses, non-collapsible, for fire-fighting service —

Part 2: Semi-rigid hoses (and hose assemblies) for pumps and vehicles

1 Scope

This part of ISO 4642 specifies the requirements and test methods for semi-rigid reel hoses for use on fire-fighting vehicles and trailer pumps. The hoses are intended for use at a maximum working pressure of 1,5 MPa for normal pressure hoses (category I) and 4,0 MPa for high pressure hoses (category II). The hoses are further subdivided into types and classes (see [Clause 4](#)).

This part of ISO 4642 applies to delivery hoses for fire-fighting purposes intended for use at a minimum ambient temperature of $-20\text{ }^{\circ}\text{C}$.

Hoses conforming to this part of ISO 4642 are intended to be used with fire hose couplings conforming to the relevant national standards couplings.

Requirements are also given for hose assemblies (see [6.12](#)) where these are fitted by the hose manufacturer.

NOTE 1 Hoses for use at temperatures lower than $-20\text{ }^{\circ}\text{C}$ can be supplied by agreement between the manufacturer and purchaser.

NOTE 2 All pressures are expressed in megapascals where $1\text{ MPa} = 10\text{ bar}$.

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.

ISO 176:2005, *Plastics — Determination of loss of plasticizers — Activated carbon method*

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

ISO 1307, *Rubber and plastics hoses — Hose sizes, minimum and maximum inside diameters, and tolerances on cut-to-length hoses*

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

ISO 4671:2007, *Rubber and plastics hoses and hose assemblies — Methods of measurement of the dimensions of hoses and the lengths of hose assemblies*

ISO 7326:2006, *Rubber and plastics hoses — Assessment of ozone resistance under static conditions*

ISO 8033:2006, *Rubber and plastics hoses — Determination of adhesion between components*

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

ISO 10619-2:2011, *Rubber and plastics hoses and tubing — Measurement of flexibility and stiffness — Part 2: Bending tests at sub-ambient temperatures*