



BSI Standards Publication

Small craft — Non-fire-resistant fuel hoses

National foreword

This British Standard is the UK implementation of EN ISO 8469:2021. It is identical to ISO 8469:2021. It supersedes BS EN ISO 8469:2018, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GME/33, Small craft.

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

This publication has been prepared under a mandate given to the European Standards Organizations by the European Commission and the European Free Trade Association and is intended to support essential requirements of the EU legislation detailed in the European foreword. Annex ZA/ZZ describes how the publication relates to the legislation.

For the Great Britain market (England, Scotland and Wales), if the UK Government has designated this publication for conformity with UKCA marking legislation and has not amended the essential requirements of that legislation, Annex ZA/ZZ and any references to EU law in the publication should be read in accordance with the designation as applying to UK legislation in the same way as to EU law. Further information on designated standards can be found at www.bsigroup.com/standardsandregulation.

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EUROPEAN STANDARD

EN ISO 8469

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2021

ICS 47.080

Supersedes EN ISO 8469:2018

English Version

Small craft - Non-fire-resistant fuel hoses (ISO 8469:2021)

Petits navires - Tuyaux souples pour carburant
non résistants au feu (ISO 8469:2021)

Kleine Wasserfahrzeuge -
Nicht feuerwiderstandsfähige
Kraftstoffschläuche (ISO 8469:2021)

This European Standard was approved by CEN on 5 January 2021.

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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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European foreword

This document (EN ISO 8469:2021) has been prepared by Technical Committee ISO/TC 188 "Small craft" in collaboration with Technical Committee CEN/TC 464 "Small Craft" the secretariat of which is held by SIS.

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 September 2021, and conflicting national standards shall be withdrawn at the latest by September 2021.

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 8469:2018.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative [Annex ZA](#), which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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.

Endorsement notice

The text of ISO 8469:2021 has been approved by CEN as EN ISO 8469:2021 without any modification.

Contents

Page

Foreword	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 General requirements	2
5 Hose inner diameter	2
6 Physical tests on finished hose	3
6.1 General.....	3
6.2 Test liquids.....	3
6.3 Bursting pressure.....	3
6.4 Vacuum collapse test.....	3
6.5 Volume change in test liquids.....	3
6.6 Mass reduction of test hose.....	4
6.7 Effect of ozone.....	4
6.8 Fuel permeation.....	4
6.9 Cold flex test.....	4
6.10 Abrasion test.....	4
6.11 Dry heat resistance test.....	5
6.12 Oil resistance test.....	5
6.13 Adhesion test.....	5
7 Marking	5
Annex A (normative) Fuel permeation test	6
Bibliography	8

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 of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 188, *Small craft*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 464, *Small craft*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 8469:2013), which has been technically revised.

The main changes compared to the previous edition are as follows:

- requirements for low permeation fuel hoses have been added in [6.8](#);
- the test fluids in [6.2](#) for petrol have been clarified;
- the test set-up in [Figure A.1](#) has been revised to remove the vented capillary tube.

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.

Small craft — Non-fire-resistant fuel hoses

1 Scope

This document specifies general requirements and physical tests for non-fire-resistant hoses for conveying petrol or petrol blended with ethanol, and diesel fuel or diesel fuel blended with FAME, designed for a working pressure not exceeding 0,34 MPa for hoses with inner diameter up to and including 10 mm, and 0,25 MPa for hoses up to 63 mm inner diameter in small craft. .

It applies to hoses for small craft with permanently installed fuel systems.

Specifications for fire-resistant hoses are given in ISO 7840:2021. Specifications for permanently installed fuel systems are given in ISO 10088:2013.

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 1402:2009, *Rubber and plastics hoses and hose assemblies — Hydrostatic testing*

ISO 1817:2015, *Rubber, vulcanized or thermoplastic — Determination of the effect of liquids*

ISO 7233:2016, *Rubber and plastics hoses and hose assemblies — Determination of resistance to vacuum*

ISO 7326:2016, *Rubber and plastics hoses — Assessment of ozone resistance under static conditions*

EN 14214:2012+A2:2019, *Liquid petroleum products — Fatty acid methyl esters (FAME) for use in diesel engines and heating applications — Requirements and test methods*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

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

3.1

FAME

fatty acid methyl ester

fuel composed of mono-alkyl esters of long-chain fatty acids derived from vegetable oils or animal fats

Note 1 to entry: The physical characteristics of fatty acid esters are closer to those of fossil diesel fuels than pure vegetable oils, but properties depend on the type of vegetable oil.

[SOURCE: ISO 16147:2020, 3.7, modified — Note 1 to entry has been added.]

3.2

tube

interior liner of the fuel hose that is normally in contact with the fuel