

This is a preview of "BS ISO 4079:2015". [Click here to purchase the full version from the ANSI store.](#)

**BS ISO 4079:2015**



**BSI Standards Publication**

# **Rubber hoses and hose assemblies — Textile-reinforced hydraulic types for oil-based or water-based fluids — Specification**

**bsi.**

...making excellence a habit.™

This is a preview of "BS ISO 4079:2015". [Click here to purchase the full version from the ANSI store.](#)

This British Standard is the UK implementation of ISO 4079:2015. It supersedes BS ISO 4079:2009 which is withdrawn.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 secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2015.  
Published by BSI Standards Limited 2015

ISBN 978 0 580 89084 0

ICS 83.140.40|23.100.40

**Compliance with a British Standard cannot confer immunity from legal obligations.**

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 November 2015.

#### **Amendments/corrigenda issued since publication**

Date	Text affected
------	---------------

---

This is a preview of "BS ISO 4079:2015". [Click here to purchase the full version from the ANSI store.](#)

Fourth edition  
2015-11-01

---

---

## **Rubber hoses and hose assemblies — Textile-reinforced hydraulic types for oil-based or water-based fluids — Specification**

*Tuyaux et flexibles en caoutchouc — Types hydrauliques avec  
armature de textile pour fluides à base d'huile ou à base d'eau —  
Spécifications*



Reference number  
ISO 4079:2015(E)

© ISO 2015

This is a preview of "BS ISO 4079:2015". Click here to purchase the full version from the ANSI store.



## **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2015, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
copyright@iso.org  
www.iso.org

This is a preview of "BS ISO 4079:2015". Click here to purchase the full version from the ANSI store.

## Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>2</b>
<b>4 Classification</b> .....	<b>2</b>
<b>5 Materials and construction</b> .....	<b>2</b>
5.1 Hoses.....	2
5.2 Hose assemblies.....	2
<b>6 Dimensions</b> .....	<b>2</b>
6.1 Hose diameters and hose concentricity.....	2
6.2 Length.....	4
<b>7 Performance requirements</b> .....	<b>4</b>
7.1 General.....	4
7.2 Hydrostatic requirements.....	4
7.3 Minimum bend radius.....	5
7.4 Resistance to impulse.....	6
7.4.1 Water-based fluids.....	6
7.4.2 Oil-based fluids.....	6
7.4.3 Optional impulse test.....	7
7.5 Leakage of hose assemblies.....	7
7.6 Cold flexibility.....	7
7.7 Adhesion between components.....	7
7.8 Vacuum resistance.....	8
7.9 Fluid resistance.....	8
7.9.1 Test pieces.....	8
7.9.2 Oil resistance.....	8
7.9.3 Water resistance.....	8
7.10 Ozone resistance.....	8
7.11 Visual examination.....	9
<b>8 Marking</b> .....	<b>9</b>
8.1 Hoses.....	9
8.2 Hose assemblies.....	9
<b>Annex A (normative) Type and routine testing of production hoses</b> .....	<b>10</b>
<b>Annex B (informative) Periodic testing of production hose</b> .....	<b>11</b>
<b>Annex C (informative) Recommendations for lengths of supplied hoses and tolerances on lengths of hose assemblies</b> .....	<b>12</b>

This is a preview of "BS ISO 4079:2015". [Click here to purchase the full version from the ANSI store.](#)

## 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. [www.iso.org/directives](http://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. [www.iso.org/patents](http://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 fourth edition cancels and replaces the third edition (ISO 4079:2009), of which it constitutes a minor revision.

This is a preview of "BS ISO 4079:2015". [Click here to purchase the full version from the ANSI store.](#)

# Rubber hoses and hose assemblies — Textile-reinforced hydraulic types for oil-based or water-based fluids — Specification

## 1 Scope

This International Standard specifies requirements for five types of textile-reinforced hydraulic hose and hose assembly of nominal size from 5 to 100. They are suitable for use with water-based hydraulic fluids HFC, HFAE, HFAS and HFB as defined in ISO 6743-4 at temperatures ranging from  $-40\text{ °C}$  to  $+60\text{ °C}$  or oil-based hydraulic fluids HH, HL, HM, HR and HV as defined in ISO 6743-4 at temperatures ranging from  $-40\text{ °C}$  to  $+100\text{ °C}$ .

This International Standard does not include requirements for end fittings. It is limited to requirements for hoses and hose assemblies.

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

## 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 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 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 6605, *Hydraulic fluid power — Hoses and hose assemblies — Test methods*

ISO 6743-4, *Lubricants, industrial oils and related products (class L) — Classification — Part 4: Family H (Hydraulic systems)*

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 7326:2006, *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 10619-1, *Rubber and plastics hoses and tubing — Measurement of flexibility and stiffness — Part 1: Bending tests at ambient temperature*

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