



NSAI
Standards

Irish Standard
I.S. EN ISO 5774:2016

Plastics hoses - Textile-reinforced types for compressed-air applications - Specification (ISO 5774:2016)

I.S. EN ISO 5774:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN ISO 5774:2016

Published:

2016-02-24

*This document was published
under the authority of the NSAI
and comes into effect on:*

2016-03-14

ICS number:

23.040.70

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN ISO 5774:2016 is the adopted Irish version of the European Document EN ISO 5774:2016, Plastics hoses - Textile-reinforced types for compressed-air applications - Specification (ISO 5774:2016)

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

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

EUROPEAN STANDARD

EN ISO 5774

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2016

ICS 23.040.70

Supersedes EN ISO 5774:2008

English Version

Plastics hoses - Textile-reinforced types for compressed-air applications - Specification (ISO 5774:2016)

Tuyaux en plastique - Types armés de textile pour applications avec de l'air comprimé - Spécifications (ISO 5774:2016)

Kunststoffschläuche - Textilverstärkte Typen für Druckluftanwendungen - Anforderung (ISO 5774:2016)

This European Standard was approved by CEN on 21 November 2015.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN ISO 5774:2016 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 5774:2016) 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 August 2016, and conflicting national standards shall be withdrawn at the latest by August 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 5774:2008.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 5774:2016 has been approved by CEN as EN ISO 5774:2016 without any modification.

This page is intentionally left blank

INTERNATIONAL STANDARD

**ISO
5774**

Fourth edition
2016-01-15

Plastics hoses — Textile-reinforced types for compressed-air applications — Specification

*Tuyaux en plastique — Types armés de textile pour applications avec
de l'air comprimé — Spécifications*



Reference number
ISO 5774:2016(E)

© ISO 2016

ISO 5774:2016(E)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, 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

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Classification	2
5 Couplings and end fittings	2
6 Materials and construction	2
7 Dimensions and tolerances	2
7.1 Inside diameter, tolerances and minimum wall thickness.....	2
7.2 Concentricity.....	3
7.3 Tolerances on length.....	3
8 Physical properties	3
8.1 Plastic compounds.....	3
8.1.1 Tensile strength and elongation at break of lining and cover.....	3
8.1.2 Resistance to ageing.....	4
8.1.3 Loss in mass on heating.....	4
8.1.4 Resistance to liquids.....	4
8.1.5 Hydrolysis test.....	4
8.2 Performance requirements on finished hoses.....	4
8.2.1 Hydrostatic requirements.....	4
8.2.2 Adhesion.....	5
8.2.3 Exposure to a xenon arc lamp.....	5
8.2.4 Bending test.....	5
8.2.5 Low-temperature flexibility.....	6
9 Frequency of testing	6
10 Marking	6
11 Recommendations for packaging and storage	6
12 Test report	7
Annex A (normative) Hydrolysis test	8
Annex B (normative) Type and routine tests	10
Annex C (informative) Production acceptance tests	11
Annex D (informative) Couplings and end fittings	12
Bibliography	13

ISO 5774:2016(E)

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 fourth edition cancels and replaces the third edition (ISO 5774:2006), of which it constitutes a minor revision.

The minor changes are as follows:

- [Clause 2](#) has been updated: ISO 1746, ISO 4672 and ISO 11758 have been deleted and replaced by ISO 10619-1, 10619-2 and ISO 30013.
- Pressures have been specified in MPa and bar (with the units stated) and [Table 5](#) has been amended accordingly. Also [Clause 10](#) (Marking) has been slightly modified to make the information more complete.
- The term “type approval” has been replaced by “type test”.
- The error in [Annex B](#), where, in the column “routine testing”, the proof pressure test was marked N.A. has been corrected. Proof pressure testing for each length of finished hose supplied has become normative as standard for nearly all other hose product standards.
- Also [Annex C](#) (informative) has been amended (this annex is for guidance only) and the recommendation for production acceptance testing on tensile strength/elongation at break of lining and cover, change in length and diameter at proof pressure, adhesion, bending test has been changed from “N.A.” to “X”, in order to monitor the quality of manufacturer's production more efficiently.

Introduction

This International Standard has been prepared to provide minimum acceptable requirements for the satisfactory performance of flexible thermoplastics hoses, textile reinforced, for compressed-air applications.

Maximum working pressures of each hose type are specified with two operating temperatures.

Some hose materials will require a hydrolysis test (given in [Annex A](#)).

Plastics hoses — Textile-reinforced types for compressed-air applications — Specification

1 Scope

This International Standard specifies the requirements for four types of flexible thermoplastic hose, textile reinforced, for compressed-air applications in the temperature range from $-10\text{ }^{\circ}\text{C}$ to $+60\text{ }^{\circ}\text{C}$.

The four types are classified as light service for a maximum working pressure of 7 bar at $23\text{ }^{\circ}\text{C}$ and 4,5 bar at $60\text{ }^{\circ}\text{C}$, medium service for a maximum working pressure of 10 bar at $23\text{ }^{\circ}\text{C}$ and 6,5 bar at $60\text{ }^{\circ}\text{C}$, heavy service for a maximum working pressure of 16 bar at $23\text{ }^{\circ}\text{C}$ and 11 bar at $60\text{ }^{\circ}\text{C}$, and heavy service for use in mining for a maximum working pressure of 25 bar at $23\text{ }^{\circ}\text{C}$ and 13 bar at $60\text{ }^{\circ}\text{C}$.

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 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*

ISO 105-A02, *Textiles — Tests for colour fastness — Part A02: Grey scale for assessing change in colour*

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

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

ISO 8331, *Rubber and plastics hoses and hose assemblies — Guide to selection, storage, use and maintenance*

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*

ISO 30013, *Rubber and plastics hoses — Methods of exposure to laboratory light sources — Determination of changes in colour, appearance and other physical properties*

3 Terms and definitions

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

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-