



NSAI
Standards

Irish Standard
I.S. EN 14540:2014

Fire-fighting hoses - Non-percolating layflat hoses for fixed systems

I.S. EN 14540:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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Fire-fighting hoses - Non-percolating layflat hoses for fixed systems

Tuyaux de lutte contre l'incendie - Tuyaux aplatissables étanches pour systèmes fixes

Feuerlöschschläuche - Flachschräuche für Wandhydranten

This European Standard was approved by CEN on 28 May 2014.

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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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Foreword

This document (EN 14540:2014) has been prepared by Technical Committee CEN/TC 192 “Fire and Rescue Service Equipment”, 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of an identical text or by endorsement, at the latest by January 2015 and conflicting national standards shall be withdrawn at the latest by January 2015.

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 14540:2004+A1:2007.

This revised standard now references EN 15889:2011, *Fire-fighting hoses - Test methods*, which includes the test methods formerly in annexes within EN 14540.

This standard is based on liaison with CEN/TC 191 “Fixed fire-fighting systems” and should be read in conjunction with EN 671-2.

Requirements for semi-rigid hoses for use with fire-fighting pumps and vehicles are given in EN 1947; those semi-rigid hoses for fixed systems are given in EN 694.

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.

EN 14540:2014 (E)

Introduction

A fixed system is a manually operated unit installed in a building in order to make it possible for the occupants to control and extinguish a small fire. The system consists of fixed units mounted on walls or in cabinets permanently connected to a water supply. The fixed units are composed of a coupling, a valve with a pressure indicator, a layflat hose with its support and a nozzle.

The fixed systems are specified in EN 671-2, *Fixed firefighting systems — Hose systems — Part 2: Hose systems with lay-flat hose*.

1 Scope

This European Standard specifies the requirements and test methods for non-percolating layflat hoses for fixed systems. The hoses are intended for use at a maximum working pressure of 1,5 MPa over a range of inside diameters from 25 mm to 52 mm.

This European Standard applies exclusively to hoses for fire-fighting purposes intended for use at a minimum ambient temperature of $-20\text{ }^{\circ}\text{C}$ in normal conditions, and a minimum temperature of $-30\text{ }^{\circ}\text{C}$ in colder climatic conditions and a maximum ambient temperature of $+60\text{ }^{\circ}\text{C}$. Hoses conforming to this standard should be used with fire hose couplings conforming to the relevant national standards for couplings.

NOTE 1 Hoses for use at ambient temperatures below $-20\text{ }^{\circ}\text{C}$ can be supplied if they have been tested at the specified lower temperature in accordance with 6.4 and identified by their marking in Clause 8 f).

Hoses in marine applications and/or aggressive environments to be used with wall hydrants as specified in EN 671-2 can conform to the requirements of this standard.

NOTE 2 All pressures are gauge pressures and are expressed in megapascals¹.

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.

EN 15889:2011, *Fire-fighting hoses - Test methods*

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

EN ISO 1402, *Rubber and plastics hoses and hose assemblies - Hydrostatic testing (ISO 1402)*

EN ISO 4671, *Rubber and plastics hoses and hose assemblies - Methods of measurement of the dimensions of hoses and the lengths of hose assemblies (ISO 4671)*

EN ISO 8033, *Rubber and plastics hoses - Determination of adhesion between components (ISO 8033)*

EN ISO 8330, *Rubber and plastics hoses and hose assemblies - Vocabulary (ISO 8330)*

¹ 1 MPa = 10 bar

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