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Slang och slangställ av gummi och plast – Icke bunden fluorplastfodrad (t ex PTFE) slang och slangställ för kemikalier i vätske- eller gasform – Specifikation

Rubber and plastics hoses and hose assemblies – Non-bonded fluoroplastic lined (e.g. PTFE) hoses and hose assemblies for liquid and gaseous chemicals – Specification

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Europastandarden EN 16643:2016 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 16643:2016.

Denna standard ersätter SS 155480:2012, utgåva 2.

The European Standard EN 16643:2016 has the status of a Swedish Standard. This document contains the official English version of EN 16643:2016.

This standard supersedes the Swedish Standard SS 155480:2012, edition 2.

Upplysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna upplysningar om svensk och utländsk standard.

Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Denna standard är framtagen av kommittén för Gummi och gummiprodukter, SIS/TK 154.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 16643

August 2016

ICS 23.040.70

English Version

Rubber and plastics hoses and hose assemblies - Non-bonded fluoroplastic lined (e.g. PTFE) hoses and hose assemblies for liquid and gaseous chemicals - Specification

Tuyaux et flexibles en caoutchouc et en matières plastiques - Tuyaux non-liés revêtus de fluoroplastique (par exemple PTFE) pour substances chimiques liquides ou gazeuses - Spécifications

Gummi- und Kunststoffschläuche und -schlauchleitungen - Fluorkunststoffbeschichtete (z. B. PTFE) Nicht-Verbundschläuche und -schlauchleitungen für flüssige und gasförmige Chemikalien - Anforderungen

This European Standard was approved by CEN on 15 June 2016.

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

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Contents

Page

Tables

Figures

European foreword

This document (EN 16643:2016) has been prepared by 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 February 2017, and conflicting national standards shall be withdrawn at the latest by February 2017.

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.

Annexes A, C, E, F, I and J are normative. Annexes B, D, G, H and K are informative.

WARNING – Persons using this European Standard should be familiar with normal laboratory practice. This standard does not purport to address all the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate health and safety practices and to ensure compliance with any national regulatory conditions.

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

Introduction

This document has been prepared to provide minimum acceptable requirements for the satisfactory performance of non-bonded flexible fluoroplastic lined hoses and hose assemblies with various types of reinforcement, for each chemical substance conveyed.

1 Scope

This European Standard specifies requirements for three types of non-bonded fluoroplastic lined hoses and hose assemblies with convoluted or smooth linings designed to convey liquid or gaseous chemical substances, hereinafter termed the "chemicals conveyed". These hoses and hose assemblies can be used for pharmaceutical, biotechnology and industrial applications as detailed in Clause 5.

The hose assemblies are intended for use with chemicals conveyed in the temperature range of −70°C to +260°C and for a working pressure up to 205 bar[1)].

NOTE 1 This standard sets out requirements for these hoses and hose assemblies to ensure that users are not exposed to danger from fire or explosion and that the environment is protected against contamination or damage.

NOTE 2 Other working pressures than those given above can be agreed with the manufacturer provided the physical properties of the hose assembly materials conform to Clause 8, the hose and hose assembly performance requirements conform to Clause 9 and the hose assembly electrical properties conform to Clause 10.

NOTE 3 Other diameters than those given in this standard can be agreed with the manufacturer provided the physical properties of the hose assembly materials conform to Clause 8, the hose and hose assembly performance requirements conform to Clause 9 and the hose assembly electrical properties conform to Clause 10.

NOTE 4 This standard also provides guidance on the storage of hose assemblies (Clause 15).

NOTE 5 The attention of users is drawn to Annex G concerning the working temperature range which can be affected by the chemical(s) to be conveyed in the hoses and hose assemblies.

NOTE 6 The attention of users is drawn to Annex G concerning the selection of materials for lining, helix wire (if applicable), electrical bonding wire (if applicable), braid reinforcement and cover (if applicable) related to the chemical(s) to be conveyed by the hoses and hose assemblies.

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 10088-3:2014, *Stainless steels — Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes*

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

EN ISO 8031:2009, *Rubber and plastics hoses and hose assemblies — Determination of electrical resistance and conductivity (ISO 8031:2009)*

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

1) 1 bar = 0,1 MPa.