SVENSK STANDARD SS-ISO 13363:2016



Fastställd/Approved: 2016-01-13 Publicerad/Published: 2016-01-28

Utgåva/Edition: 2

Språk/Language: engelska/English

ICS: 47.080; 83.140.40

Båtar – Slang av gummi och plast för våta avgaser till marina motorer – Specifikation (ISO 13363:2015, IDT)

Rubber and plastics hoses for marine-engine wet-exhaust systems – Specification (ISO 13363:2015, IDT)

This preview is downloaded from www.sis.se. Buy the entire standard via https://www.sis.se/std-8018382

Standarder får världen att fungera

SIS (Swedish Standards Institute) är en fristående ideell förening med medlemmar från både privat och offentlig sektor. Vi är en del av det europeiska och globala nätverk som utarbetar internationella standarder. Standarder är dokumenterad kunskap utvecklad av framstående aktörer inom industri, näringsliv och samhälle och befrämjar handel över gränser, bidrar till att processer och produkter blir säkrare samt effektiviserar din verksamhet.

Delta och påverka

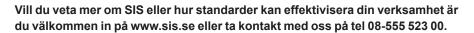
Som medlem i SIS har du möjlighet att påverka framtida standarder inom ditt område på nationell, europeisk och global nivå. Du får samtidigt tillgång till tidig information om utvecklingen inom din bransch.

Ta del av det färdiga arbetet

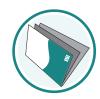
Vi erbjuder våra kunder allt som rör standarder och deras tillämpning. Hos oss kan du köpa alla publikationer du behöver – allt från enskilda standarder, tekniska rapporter och standardpaket till handböcker och onlinetjänster. Genom vår webbtjänst e-nav får du tillgång till ett lättnavigerat bibliotek där alla standarder som är aktuella för ditt företag finns tillgängliga. Standarder och handböcker är källor till kunskap. Vi säljer dem.

Utveckla din kompetens och lyckas bättre i ditt arbete

Hos SIS kan du gå öppna eller företagsinterna utbildningar kring innehåll och tillämpning av standarder. Genom vår närhet till den internationella utvecklingen och ISO får du rätt kunskap i rätt tid, direkt från källan. Med vår kunskap om standarders möjligheter hjälper vi våra kunder att skapa verklig nytta och lönsamhet i sina verksamheter.









Standards make the world go round

SIS (Swedish Standards Institute) is an independent non-profit organisation with members from both the private and public sectors. We are part of the European and global network that draws up international standards. Standards consist of documented knowledge developed by prominent actors within the industry, business world and society. They promote cross-border trade, they help to make processes and products safer and they streamline your organisation.

Take part and have influence

As a member of SIS you will have the possibility to participate in standardization activities on national, European and global level. The membership in SIS will give you the opportunity to influence future standards and gain access to early stage information about developments within your field.

Get to know the finished work

We offer our customers everything in connection with standards and their application. You can purchase all the publications you need from us - everything from individual standards, technical reports and standard packages through to manuals and online services. Our web service e-nav gives you access to an easy-to-navigate library where all standards that are relevant to your company are available. Standards and manuals are sources of knowledge. We sell them.

Increase understanding and improve perception

With SIS you can undergo either shared or in-house training in the content and application of standards. Thanks to our proximity to international development and ISO you receive the right knowledge at the right time, direct from the source. With our knowledge about the potential of standards, we assist our customers in creating tangible benefit and profitability in their organisations.

If you want to know more about SIS, or how standards can streamline your organisation, please visit www.sis.se or contact us on phone +46 (0)8-555 523 00







Den internationella standarden ISO 13363:2015 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av ISO 13363:2015.

Denna standard ersätter SS-ISO 13363:2004, utgåva 1 och SS-ISO 13363:2004/Cor 1:2008, utgåva 1.

The International Standard ISO 13363:2015 has the status of a Swedish Standard. This document contains the official English version of ISO 13363:2015.

This standard supersedes the Swedish Standard SS-ISO 13363:2004, edition 1 and SS-ISO 13363:2004/Cor 1:2008, edition 1.

© Copyright/Upphovsrätten till denna produkt tillhör SIS, Swedish Standards Institute, Stockholm, Sverige. Användningen av denna produkt regleras av slutanvändarlicensen som återfinns i denna produkt, se standardens sista sidor.

© Copyright SIS, Swedish Standards Institute, Stockholm, Sweden. All rights reserved. The use of this product is governed by the end-user licence for this product. You will find the licence in the end of this document.

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.

This preview is downloaded from www.sis.se. Buy the entire standard via https://www.sis.se/std-8018382	2

Contents Page Foreword _____iv 1 Scope 1 2 Normative references ______1 3 Terms and definitions 2 4 Classification 2 Materials and construction _____2 5 Dimensions and tolerances 3 6 7 Physical properties 3 General......3 7.1 7.2 7.3 Compression set (only rubber hoses)......4 7.4 7.5 Resistance to liquids (only class A hoses) 4 Loss in mass on heating (only plastics hoses) 4 7.6 8 Physical tests on finished hose or tubing......4 Minimum burst pressure ______4 8.1 Flexibility (for type 1 and type 2 only).......4 8.2 Ozone resistance (rubber hoses only)......4 8.3 8.4 Ultraviolet (UV) resistance (plastics hoses only)......4 8.5 Heat resistance 5 8.6 8.7 Ageing 5 9 Frequency of tests 5 10 Marking 6 Annex A (normative) Heat-resistance test Annex B (normative) Type and routine tests Annex C (informative) Recommended production acceptance tests ______9

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 second edition cancels and replaces the first edition (ISO 13363:2004), which has been technically revised with the following changes:

- class B hoses to be of rubber materials only;
- the abrasion test has been removed until a new abrasion test standard has been developed and the corresponding International Standard published.

It also incorporates the Technical Corrigendum ISO 13363:2004/Cor.1:2008.

Rubber and plastics hoses for marine-engine wet-exhaust systems — Specification

WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This International Standard does not purport to address all of 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.

1 Scope

This International Standard specifies requirements for three types and two classes of hose. The hoses are intended for use in marine-engine wet-exhaust systems (where the exhaust gases are mixed with the discharge of cooling water). It does not apply to outboard motor/personal water craft.

The three types are the following:

- type 1: a softwall hose, made of oil-resistant material, with a synthetic-fabric reinforcement;
- type 2: a hardwall hose, made of oil-resistant material, with a synthetic-fabric reinforcement with a helical wire embedded in it;
- type 3: a hose or tube (flexible connector), made of oil-resistant material, with or without a reinforcement or cover, intended for use in short lengths in locations where the connector is protected from mechanical damage.

The two classes are the following:

- class A: intended for diesel engines;
- class B: intended for petrol engines and for diesel engines with a very high exhaust temperature.

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 48, Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD)

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 815, Rubber, vulcanized or thermoplastic — Determination of compression set at ambient

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 7326:2006, Rubber and plastics hoses — Assessment of ozone resistance under static conditions

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

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

ISO 10619-1:2011, Rubber and plastics hoses and tubing — Measurement of flexibility and stiffness — Part 1: Bending tests at ambient temperature

ISO 30013:2011, 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.

4 Classification

Hoses shall be one of the types and classes specified in <u>Table 1</u>.

Table 1 — Types and classes of hose

Type	Class	Description
1	A	A softwall hose, made of oil-resistant material, with a synthetic-fabric reinforcement. When tested in accordance with Annex A, the hose shall withstand 2 min of exhaust gas at 370 °C.
	В	A softwall hose, made of oil-resistant rubber material, with a synthetic-fabric reinforcement. When tested in accordance with Annex A, the hose shall withstand 2 min of exhaust gas at 580 °C.
2	A	A hardwall hose, made of oil-resistant material, with a synthetic-fabric reinforcement with a helical wire embedded in it. When tested in accordance with Annex A, the hose shall withstand 2 min of exhaust gas at 370 °C.
	В	A hardwall hose, made of oil-resistant rubber material, with a synthetic-fabric reinforcement with a helical wire embedded in it. When tested in accordance with Annex A, the hose shall withstand 2 min of exhaust gas at 580 °C.
3	A	A hose or tube (flexible connector), made of oil-resistant material, with or without a reinforcement or cover, intended for use in short lengths in locations where the connector is protected from mechanical damage. When tested in accordance with Annex A, the hose or tube shall withstand 2 min of exhaust gas at 370 °C.
	В	A hose or tube (flexible connector), made of oil-resistant rubber material, with or without a reinforcement or cover, intended for use in short lengths in locations where the connector is protected from mechanical damage. When tested in accordance with Annex A, the hose or tube shall withstand 2 min of exhaust gas at 580 °C.

5 Materials and construction

The hose shall consist of the following:

- a smooth-bore water- and heat-resistant rubber or plastics tube (plastics are not suitable for class B hoses);
- an oil- and fuel-resistant rubber or plastics tube (plastics are not suitable for class B hoses; oil and fuel resistance are not necessary for class B hoses);
- one or more layers of synthetic-fabric reinforcement (not necessary for type 3 hoses);
- one or more helical wires embedded within the rubber or plastics material (for type 2 hoses only);
- an ozone-, heat-, and abrasion-resistant rubber or plastics cover (not necessary for type 3 hoses; plastics are not suitable for class B hoses).