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Rubber hoses and hose assemblies for water suction and discharge - Specification (ISO 4641:2024)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/24

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EUROPÄISCHE NORM

EN ISO 4641

May 2024

ICS 23.040.70

Supersedes EN ISO 4641:2016

English Version

Rubber hoses and hose assemblies for water suction and discharge - Specification (ISO 4641:2024)

Tuyaux et flexibles en caoutchouc pour aspiration et refoulement d'eau - Spécifications (ISO 4641:2024)

Saug- und Druck-Gummischläuche und -schlauchleitungen für Wasser - Anforderungen (ISO 4641:2024)

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European foreword

This document (EN ISO 4641:2024) 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of an identical text or by endorsement, at the latest by November 2024, and conflicting national standards shall be withdrawn at the latest by November 2024.

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International Standard

ISO 4641

Rubber hoses and hose assemblies for water suction and discharge — Specification

Tuyaux et flexibles en caoutchouc pour aspiration et refoulement d'eau — Spécifications

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Foreword

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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 document 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).

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This document was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 1, *Rubber and plastics hoses and hose assemblies*.in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 218, *Rubber and plastics hoses and hose assemblies,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This sixth edition cancels and replaces the fifth edition (ISO 4641:2016), which has been technically revised.

The main changes are as follows:

— publication dates of normative references ISO 7233 and ISO 10619-2 have been updated (Clause 2);

— re-writing the rubber properties limited to Table 1;

— marking of the hose and assembly has been updated (Clause 10);

— test requirements have been updated in Annexes A and B.

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International Standard **ISO 4641:2024(en)**

Rubber hoses and hose assemblies for water suction and discharge — Specification

1 Scope

This document specifies the minimum requirements for textile-reinforced, smooth-bore rubber water-suction and discharge hoses and hose assemblies.

Three types of hoses and hose assemblies are specified according to their operating duty requirements, i.e. their ambient and water temperature ranges:

— ambient temperatures: –25 °C to +70 °C;

— water temperatures during operation: 0 °C to +70 °C.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. 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 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 4671, *Rubber and plastics hoses and hose assemblies — Methods of measurement of the dimensions of hoses and the lengths of hose assemblies*

ISO 7233:2021, *Rubber and plastics hoses and hose assemblies — Determination of resistance to vacuum*

ISO 7326:2016, *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 8331, *Rubber and plastics hoses and hose assemblies — Guidelines for 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 10619-2:2021, *Rubber and plastics hoses and tubing — Measurement of flexibility and stiffness — Part 2: Bending tests at sub-ambient temperatures*

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