

ISO 3861:2021



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**Rubber hoses and hose assemblies for sand and grit blasting -
Specification (ISO 3861:2021)**

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Rubber hoses and hose assemblies for sand and grit blasting - Specification (ISO 3861:2021)

Tuyaux et flexibles en caoutchouc pour sablage et
grenaillage - Spécifications (ISO 3861:2021)

Gummischläuche und -schlauchleitungen zum
Sandstrahlen - Anforderungen (ISO 3861:2021)

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 3861:2021 (E)

Contents

Page

| | |
|------------------------|---|
| European foreword..... | 3 |
|------------------------|---|

European foreword

This document (EN ISO 3861:2021) 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of an identical text or by endorsement, at the latest by August 2021, and conflicting national standards shall be withdrawn at the latest by August 2021.

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.

This document supersedes EN ISO 3861:2008.

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

Endorsement notice

The text of ISO 3861:2021 has been approved by CEN as EN ISO 3861:2021 without any modification.

INTERNATIONAL STANDARD

ISO 3861

Fourth edition
2021-01

Rubber hoses and hose assemblies for sand and grit blasting — Specification

*Tuyaux et flexibles en caoutchouc pour sablage et grenailage —
Spécifications*



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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Contents

| | Page |
|--|-----------|
| Foreword | iv |
| Introduction | v |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms and definitions | 1 |
| 4 Classification | 2 |
| 5 Materials and construction | 2 |
| 6 Dimensions | 2 |
| 6.1 Inside diameter and tolerances | 2 |
| 6.2 Concentricity | 3 |
| 6.3 Tolerance on length | 3 |
| 6.4 Minimum thickness of lining and cover | 3 |
| 7 Physical properties | 3 |
| 7.1 Rubber compounds | 3 |
| 7.2 Finished hoses and hose assemblies | 3 |
| 8 Frequency of testing | 4 |
| 9 Marking | 4 |
| 9.1 Hoses | 4 |
| 9.2 Hose assemblies | 5 |
| Annex A (normative) Test frequency for type tests and routine tests | 6 |
| Annex B (informative) Production acceptance tests | 7 |

ISO 3861:2021(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 of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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 fourth edition cancels and replaces the third edition (ISO 3861:2005), which has been technically revised. The main changes compared to the previous edition are as follows:

- MPa units have been added throughout the document;
- [Clause 2](#) has been updated;
- inside diameters of 20 mm and 40 mm have been deleted;
- [Clause 8](#) on frequency of testing, and [Annexes A](#) and [B](#) have been added;
- [Clause 9](#) on marking has been updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document specifies rubber hoses for sand and grit blasting. When hoses are fitted with couplings, the document also contains requirements for hose assemblies.

Rubber hoses and hose assemblies for sand and grit blasting — Specification

WARNING — Persons using this document should be familiar with normal laboratory practice. This document 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.

1 Scope

This document specifies the requirements for rubber hoses and hose assemblies for wet and dry sand and grit blasting, suitable for use up to a maximum working pressure of 0,63 MPa (6,3 bar) and over an operating temperature range of -25 °C to $+70\text{ °C}$.

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 188:2011, *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 4649:2017, *Rubber, vulcanized or thermoplastic — Determination of abrasion resistance using a rotating cylindrical drum device*

ISO 4671, *Rubber and plastics hoses and hose assemblies — Methods of measurement of the dimensions of hoses and the lengths of hose assemblies*

ISO 7326:2016, *Rubber and plastics hoses — Assessment of ozone resistance under static conditions*

ISO 8031, *Rubber and plastics hoses and hose assemblies — Determination of electrical resistance and conductivity*

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

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

ISO 10619-1:2017, *Rubber and plastics hoses and tubing — Measurement of flexibility and stiffness — Part 1: Bending tests at ambient temperature*

ISO 10619-2:2017, *Rubber and plastics hoses and tubing — Measurement of flexibility and stiffness — Part 2: Bending tests at sub-ambient temperatures*

3 Terms and definitions

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