



SLOVENSKI STANDARD

oSIST prEN 853:2024

01-december-2024

Gumene cevi in cevni priključki - Z jeklenim kordom ojačene hidravlične cevi - Specifikacija

Rubber hoses and hose assemblies - Wire braid reinforced hydraulic type - Specification

Gummischläuche und -schlauchleitungen - Hydraulikschläuche mit Drahtgeflechteinlage
- Spezifikation

Tuyaux et flexibles en caoutchouc - Type hydraulique avec armature de fils métalliques
tressés - Spécification

Ta slovenski standard je istoveten z: prEN 853

<https://standards.iteh.ai/catalog/standards/sist/358646f7-f081-4f94-9466-10b4aa1d9240/osist-pren-853-2024>

ICS:

23.040.70	Gumene cevi in armature	Hoses and hose assemblies
23.100.40	Cevna napeljava in sklopke	Piping and couplings

oSIST prEN 853:2024

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 853

October 2024

ICS 23.040.70

Will supersede EN 853:2015

English Version

Rubber hoses and hose assemblies - Wire braid reinforced hydraulic type - Specification

Tuyaux et flexibles en caoutchouc - Type hydraulique
avec armature de fils métalliques tressés - Spécification

Gummischläuche und -schlauchleitungen -
Hydraulikschläuche mit Drahtgeflechteinlage -
Spezifikation

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 218.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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, 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, Türkiye and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

Contents

Page

European foreword	3
1 Scope.....	4
2 Normative references.....	4
3 Terms and definitions.....	4
4 Types of hoses.....	5
5 Materials and construction	5
5.1 Hoses	5
5.2 Hose assemblies	5
6 Dimensions.....	5
6.1 Diameters and concentricity	5
6.2 Length.....	7
6.2.1 Hoses	7
6.2.2 Hose assemblies	7
7 Requirements.....	8
7.1 Hydrostatic requirements	8
7.2 Minimum bend radius.....	9
7.3 Impulse test requirements.....	10
7.4 Leakage of hose assemblies	10
7.5 Cold flexibility	10
7.6 Adhesion between components.....	11
7.7 Vacuum resistance	11
7.8 Abrasion resistance	11-2024
7.9 Fluid resistance	12
7.9.1 Test pieces.....	12
7.9.2 Oil resistance.....	12
7.9.3 Water based fluid resistance.....	12
7.9.4 Water resistance	12
7.10 Ozone resistance	12
8 Designation	12
9 Frequency of testing	12
10 Marking	13
10.1 Hoses	13
10.2 Hose assemblies	13
Annex A (normative) Test frequency for type tests and routine tests.....	14
Bibliography	16

European foreword

This document (prEN 853:2024) 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 document is currently submitted to the CEN Enquiry.

This document will supersede EN 853:2015.

This document includes the following significant technical changes with respect to EN 853:2015:

- scope changed (nominal bore extended: 5 to 76);
- EN 853, 854, 856 and 857 have been aligned;
- updated normative references;
- Table 7 added;
- Annex A deleted;
- Annex C deleted.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[oSIST prEN 853:2024](https://standards.iteh.ai/catalog/standards/sist/358646f7-f081-4f94-9466-10b4aa1d9240/osist-pren-853-2024)

<https://standards.iteh.ai/catalog/standards/sist/358646f7-f081-4f94-9466-10b4aa1d9240/osist-pren-853-2024>

prEN 853:2024 (E)

1 Scope

This document specifies requirements for four types of wire braid reinforced hoses and hose assemblies of nominal bore from 5 to 76: Types 1SN, 2SN, 1ST and 2ST. They are suitable for use with:

- hydraulic fluids in accordance with ISO 6743-4 with the exception of HFD R, HFD S and HFD T at temperatures ranging from -40 °C to $+100\text{ °C}$;
- water based fluids at temperatures ranging from -40 °C to $+70\text{ °C}$;
- water at temperatures ranging from 0 °C to $+70\text{ °C}$.

The hoses are not suitable for use with castor oil based and ester-based fluids.

This document does not include requirements for end fittings. It is limited to the performance of hoses and hose assemblies.

NOTE Requirements for hydraulic hoses for underground mining are covered in other documents.

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.

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 6803, *Rubber or plastics hoses and hose assemblies — Hydraulic-pressure impulse test without flexing (ISO 6803)*

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

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

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

EN ISO 10619-2:2021, *Rubber and plastics hoses and tubing — Measurement of flexibility and stiffness — Part 2: Bending tests at sub-ambient temperatures (ISO 10619-2:2021)*

ISO 1817:2024, *Rubber, vulcanized or thermoplastic — Determination of the effect of liquids*

ISO/TS 20444,¹ *Rubber and plastics hoses — Determination of abrasion resistance of the outer cover*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

¹ Under preparation. Stage at time of preparation: ISO/DTS 20444