

STN	Náterové látky Povlaky znižujúce trenie pre vnútorné povrchy ocelových potrubí prepravujúcich nekorozívne plyny, uložených na pevnine a v morskom prostredí (ISO 15741: 2016)	STN EN ISO 15741 67 2025
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Paints and varnishes - Friction-reduction coatings for the interior of on- and offshore steel pipelines for non-corrosive gases (ISO 15741:2016)

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. 06/21

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Paints and varnishes - Friction-reduction coatings for the interior of on- and offshore steel pipelines for non-corrosive gases (ISO 15741:2016)

Peintures et vernis - Revêtements réduisant le frottement pour l'intérieur de gazoducs en acier enterrés et immergés pour le transport de gaz non corrosifs (ISO 15741:2016)

Beschichtungsstoffe - Reibungsreduzierende Beschichtungen für das Innere von Stahlrohrleitungen im On- und Offshore-Bereich für nicht korrosive Gase (ISO 15741:2016)

This European Standard was approved by CEN on 18 January 2021.

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EN ISO 15741:2021 (E)

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European foreword

The text of ISO 15741:2016 has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 15741:2021 by Technical Committee CEN/TC 139 "Paints and varnishes" the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by August 2021, and conflicting national standards shall be withdrawn at the latest by August 2021.

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Endorsement notice

The text of ISO 15741:2016 has been approved by CEN as EN ISO 15741:2021 without any modification.

**INTERNATIONAL
STANDARD**

**ISO
15741**

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**Paints and varnishes — Friction-
reduction coatings for the interior of
on- and offshore steel pipelines for
non-corrosive gases**

*Peintures et vernis — Revêtements réduisant le frottement pour
l'intérieur de gazoducs en acier enterrés et immergés pour le
transport de gaz non corrosifs*



Reference number
ISO 15741:2016(E)

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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).

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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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 35, *Paints and varnishes*, Subcommittee SC 14, *Protective paint systems for steel structures*.

This second edition cancels and replaces the first edition (ISO 15741:2001), which has been technically revised.

ISO 15741:2016(E)**Introduction**

Internal coating of pipelines is used to reduce friction and improve the flow conditions when conveying non-corrosive gases, and to offer sufficient corrosion protection during storage and transport of the pipes. The reduction in friction depends on various parameters like the pressure and temperature of the gas, and the diameter of the pipe. Therefore, it is not possible to give a single figure for this reduction in friction.

In order to establish sufficient corrosion protection and to ensure optimum performance of the internal coating in the steel pipes, it is necessary for owners of pipelines, planners, consultants, companies carrying out the work, inspectors of protective coatings and manufacturers of coating materials to have at their disposal state-of-the-art information in concise form including requirements for the coating. Such information has to be as complete as possible, unambiguous and easily understandable to avoid difficulties and misunderstandings between the parties concerned.

Paints and varnishes — Friction-reduction coatings for the interior of on- and offshore steel pipelines for non-corrosive gases

1 Scope

This document specifies requirements and methods of test for liquid epoxy paints and internal coatings of such paints in steel pipes and fittings for the conveyance of non-corrosive gas. It also deals with the application of the paint. Other paints or paint systems are not excluded provided they comply with the requirements given in this document. The coating consists of one layer, which is normally shop-applied on blast-cleaned steel by airless spray or other suitable spraying techniques. The applied and cured paint film must be smooth to give the desired reduction in friction. Brush application is only used for small repair jobs.

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 2409, *Paints and varnishes — Cross-cut test*

ISO 2811 (all parts), *Paints and varnishes — Determination of density*

ISO 2812-1:2007, *Paints and varnishes — Determination of resistance to liquids — Part 1: Immersion in liquids other than water*

ISO 2812-2, *Paints and varnishes — Determination of resistance to liquids — Part 2: Water immersion method*

ISO 2815, *Paints and varnishes — Buchholz indentation test*

ISO 3233-1, *Paints and varnishes — Determination of the percentage volume of non-volatile matter — Part 1: Method using a coated test panel to determine non-volatile matter and to determine dry film density by the Archimedes principle*

ISO 3251, *Paints, varnishes and plastics — Determination of non-volatile-matter content*

ISO 6743-4, *Lubricants, industrial oils and related products (class L) — Classification — Part 4: Family H (Hydraulic systems)*

ISO 6860, *Paints and varnishes — Bend test (conical mandrel)*

ISO 8501-1, *Preparation of steel substrates before application of paints and related products — Visual assessment of surface cleanliness — Part 1: Rust grades and preparation grades of uncoated steel substrates and of steel substrates after overall removal of previous coatings*

ISO 8503-1, *Preparation of steel substrates before application of paints and related products — Surface roughness characteristics of blast-cleaned steel substrates — Part 1: Specifications and definitions for ISO surface profile comparators for the assessment of abrasive blast-cleaned surfaces*

ISO 8503-2, *Preparation of steel substrates before application of paints and related products — Surface roughness characteristics of blast-cleaned steel substrates — Part 2: Method for the grading of surface profile of abrasive blast-cleaned steel — Comparator procedure*

ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests*

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ISO 19840:2012, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Measurement of, and acceptance criteria for, the thickness of dry films on rough surfaces*

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