



**NSAI**  
Standards

Irish Standard  
I.S. EN 10301:2003

Steel tubes and fittings for on and offshore pipelines - Internal coating for the reduction of friction for conveyance of non corrosive gas

## I.S. EN 10301:2003

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English version

## Steel tubes and fittings for on and offshore pipelines - Internal coating for the reduction of friction for conveyance of non corrosive gas

Tubes en acier et raccords pour canalisations enterrées et immergées - Revêtement interne antifricition pour le transport de gaz non corrosifs

Stahlrohre und -formstücke für On- und Offshore-Rohrleitungen - Innenbeschichtung zur Verringerung der Reibung beim Transport von nicht korrosivem Gas

This European Standard was approved by CEN on 9 January 2003.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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## Foreword

This document EN 10301:2003 has been prepared by Technical Committee ECISS/TC 29 “Steel tubes and fittings for steel tubes”, the secretariat of which is held by UNI/UNSIDER

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of an identical text or by endorsement, at the latest by **February 2004**, and conflicting national standards shall be withdrawn at the latest by **February 2004**.

Annexes A, B, C, D, E and F are normative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This European Standard specifies the application requirements and methods of test of liquid applied epoxy paints on the internal surface for the reduction of friction of tubes and pipeline fittings for conveyance of non-corrosive gas.

Other paints or paint systems are not excluded provided they comply with the requirements given in this standard.

The coating consist of one layer of liquid product, normally shop applied onto abrasive blast cleaned steel by airless spray or conventional spray techniques. Brush application may be used only for repairs.

The coating qualified in accordance with this standard is considered suitable for operating temperatures between – 20 °C and + 110 °C.

In this European Standard the word "components" is used for tubes and fittings.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN ISO 1513, *Paints and varnishes - Examination and preparation of samples for testing (ISO 1513:1992).*

EN ISO 1514, *Paints and varnishes - Standard panels for testing (ISO 1514:1993).*

EN ISO 1519, *Paints and varnishes - Bend test (cylindrical mandrel) (ISO 1519:2002).*

EN ISO 2409, *Paints and varnishes - Cross-cut test (ISO 2409:1992).*

EN ISO 2431, *Paints and varnishes - Determination of flow time by use of flow cups (ISO 2431:1993, including Technical Corrigendum 1:1994).*

EN ISO 2555, *Plastics - Resins in the liquid state or as emulsions or dispersions - Determination of apparent viscosity by the Brookfield Test method (ISO 2555:1989).*

EN ISO 2808, *Paints and varnishes - Determination of film thickness (ISO 2808:1997).*

EN ISO 2811, *Paints and varnishes - Determination of density (ISO 2811:1997).*

EN ISO 2812-1, *Paints and varnishes - Determination of resistance to liquids - Part 1: General methods (ISO 2812-1:1993).*

EN ISO 2812-2, *Paints and varnishes - Determination of resistance to liquids - Part 2: Water immersion method (ISO 2812-2:1993).*

EN ISO 2815, *Paints and varnishes - Buchholz indentation test (ISO 2815:1973).*

EN ISO 3251, *Paints and varnishes - Determination of non-volatile matter of paints, varnishes and binders for paints and varnishes (ISO 3251:1993).*

EN ISO 6860, *Paints and varnishes - Bend test (conical mandrel) (ISO 6860:1984).*

EN ISO 7253, *Paints and varnishes - Determination of resistance to neutral salt spray (fog) (ISO 7253:1996).*

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