

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

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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| <p>Käesolev Eesti standard EVS-EN 10301:2003 sisaldab Euroopa standardi EN 10301:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 17.09.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p> | <p>This Estonian standard EVS-EN 10301:2003 consists of the English text of the European standard EN 10301:2003.</p> <p>This document is endorsed on 17.09.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p> |
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| <p>Käsitlusala:</p> <p>This standard specifies the application requirements and methods of test of liquid applied epoxy paints to 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 shall consist of one layer of liquid product, normally shop-applied on blast cleaned steel by airless spray or conventional spray technique. Brush application shall be used only for repairs. The applied and cured paint film shall be smooth to obtain a reduction of the friction. Unless otherwise agreed, the coating shall be suitable for operating temperatures between 20 °C and + 110 °C. In this standard the word components is used for tubes and fittings.</p> | <p>Scope:</p> <p>This standard specifies the application requirements and methods of test of liquid applied epoxy paints to 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 shall consist of one layer of liquid product, normally shop-applied on blast cleaned steel by airless spray or conventional spray technique. Brush application shall be used only for repairs. The applied and cured paint film shall be smooth to obtain a reduction of the friction. Unless otherwise agreed, the coating shall be suitable for operating temperatures between 20 °C and + 110 °C. In this standard the word components is used for tubes and fittings.</p> |
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ICS 23.040.10, 25.220.60, 75.180.10

Võtmesõnad: pipelines, pipes, plastic coatings, plastics, porosity tests, quality assurance, resins, sheathings, specification (approval), specifications, steel pipes, steel tubes, steels, storage, testing, tubes, underground

Hinnagrupp N

ICS 23.040.99; 25.220.60; 75.180.10

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 antifriction 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.

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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.

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Contents

| | page |
|---|------|
| Foreword..... | 4 |
| 1 Scope | 5 |
| 2 Normative references | 5 |
| 3 Terms and definitions..... | 6 |
| 4 Coating material..... | 6 |
| 4.1 General..... | 6 |
| 4.2 Qualification of coating materials | 6 |
| 4.2.1 General..... | 6 |
| 4.2.2 Non-volatile matter (by mass)..... | 8 |
| 4.2.3 Viscosity at (23 ± 2) °C..... | 8 |
| 4.2.4 Density | 8 |
| 4.2.5 Ash content | 9 |
| 4.2.6 Pot-life | 9 |
| 4.2.7 Appearance..... | 9 |
| 4.2.8 Dry film thickness | 9 |
| 4.2.9 Adhesion test – Cross-cut test..... | 9 |
| 4.2.10 Buchholz hardness..... | 9 |
| 4.2.11 Resistance to neutral salt spray..... | 9 |
| 4.2.12 Ageing test..... | 10 |
| 4.2.13 Bend test - Conical mandrel | 10 |
| 4.2.14 Resistance to gas pressure variation | 10 |
| 4.2.15 Resistance to hydraulic blistering | 11 |
| 4.2.16 Resistance to water immersion | 11 |
| 4.2.17 Chemical resistance | 11 |
| 4.2.18 Infrared analysis..... | 12 |
| 4.3 Technical documentation..... | 12 |
| 4.4 Packaging | 12 |
| 5 Information to be supplied by the purchaser..... | 13 |
| 6 Application of the coating..... | 14 |
| 6.1 Surface preparation | 14 |
| 6.2 Composition of the coating | 14 |
| 6.2.1 Coating material preparation | 14 |
| 6.2.2 General requirements for coating material application | 14 |
| 7 Requirements of the applied coating..... | 15 |
| 7.1 General..... | 15 |
| 7.2 Appearance..... | 15 |
| 7.3 Dry film thickness | 15 |
| 7.4 Curing test | 15 |
| 7.5 Porosity test | 15 |
| 8 Inspection | 16 |
| 8.1 General..... | 16 |
| 8.2 Documents..... | 16 |
| 8.3 Sampling | 16 |
| 8.4 Nature and frequency of testing and control | 16 |
| 8.5 Retests | 17 |
| 9 Repairs | 18 |
| 10 Marking | 18 |
| 11 Handling, transportation and storage..... | 18 |

| | | |
|--------------|---|----|
| 11.1 | Handling..... | 18 |
| 11.2 | Transportation to the storage area | 18 |
| 11.3 | Storage..... | 18 |
| 11.4 | Loading of tubes for delivery | 18 |
| Annex A | (normative) Ash content | 19 |
| A.1 | General..... | 19 |
| A.2 | Apparatus | 19 |
| A.3 | Procedure | 19 |
| A.4 | Results | 19 |
| Annex B | (normative) Dry film thickness | 20 |
| B.1 | General..... | 20 |
| B.2 | Apparatus | 20 |
| B.3 | Procedure | 20 |
| B.4 | Results | 20 |
| Annex C | (normative) Resistance to gas pressure variations | 21 |
| C.1 | General..... | 21 |
| C.2 | Apparatus | 21 |
| C.3 | Procedure | 21 |
| C.3.1 | Cyclic pressure test..... | 21 |
| C.3.2 | Decompression blistering test | 22 |
| C.4 | Results | 23 |
| Annex D | (normative) Resistance to hydraulic blistering | 24 |
| D.1 | General..... | 24 |
| D.2 | Apparatus | 24 |
| D.3 | Procedure | 24 |
| D.4 | Results | 25 |
| Annex E | (normative) Porosity of the film on glass panels | 26 |
| E.1 | General..... | 26 |
| E.2 | Apparatus | 26 |
| E.3 | Procedure | 26 |
| E.3.1 | Sample preparation | 26 |
| E.3.2 | Wet film porosity | 26 |
| E.3.3 | Dry film porosity | 26 |
| E.4 | Results | 26 |
| Annex F | (normative) Wet sponge test..... | 27 |
| F.1 | General..... | 27 |
| F.2 | Apparatus | 27 |
| F.3 | Procedure | 27 |
| F.4 | Results | 27 |
| Bibliography | | 28 |

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).

EN 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 8501-1:1988).*

EN ISO 8503-4, *Preparation of steel substrates before application of paints and related products - Surface roughness characteristics of blast-cleaned steel substrates - Part 4: Method for the calibration of ISO surface profile comparators and for the determination of surface profile - Stylus instrument procedure (ISO 8503-4:1988).*

3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

3.1

coating material manufacturer

supplier of the coating material

3.2

coater

person responsible for applying the coating material to the components to be coated in accordance with the provisions of this standard

3.3

purchaser

company that buys the coated tubes and fittings

3.4

tack free

state of the coating when a finger touching the surface no longer leaves any pronounced marks

3.5

roughness

roughness parameter, R_{y5} (roughness depth average of 5 successive evaluation areas), in micrometres

[EN ISO 8503-4:1995]

4 Coating material

4.1 General

The coating material is generally composed of two packs: base and hardener.

The coating material shall not contain any substances that will be released from the paint film after it is cured and are proven to be detrimental to the operations of the pipeline.

The coating material shall be qualified in accordance with 4.2 and shall not be changed after qualification.

The applied and cured paint film shall be smooth to obtain a reduction in the friction.

Unless otherwise agreed, the applied coating should provide a corrosion protection during storage and transport for a period of one year without significant breakdown of the paint film.

4.2 Qualification of coating materials

4.2.1 General

This subclause describes the laboratory tests required for qualification of coating materials by the coating material manufacturer.