Steel tubes and fittings for onshore and offshore pipelines - External field joint coatings

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 10329:2006 sisaldab Euroopa standardi EN 10329:2006 ingliskeelset teksti. Käesolev dokument on jõustatud 27.02.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 10329:2006 consists of the English text of the European standard EN 10329:2006. This document is endorsed on 27.02.2006 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European Standard specifies the application and related testing of the corrosion protection coatings applied to steel surfaces left bare after the tubes and fittings (components) are joined by welding. It defines the different types of coatings for buried and immersed pipelines defined in Table 1.	**Scope:** This European Standard specifies the application and related testing of the corrosion protection coatings applied to steel surfaces left bare after the tubes and fittings (components) are joined by welding. It defines the different types of coatings for buried and immersed pipelines defined in Table 1.

ICS 23.040.01

Võtmesõnad: exterior coatings, fittings, inspection, marking, moulded parts, pipe coatings, pipelines, pipes, plastic coatings, plastics, sheathings, specification (approval), specifications, steel tubes, steels, testing, tubes

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 10329

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English Version

Steel tubes and fittings for onshore and offshore pipelines - External field joint coatings

Tubes et raccords en acier pour canalisations enterrées et immergées - Revêtements externes des assemblages réalisés sur site

Stahlrohre und -formstücke für erd- und wasserverlegte Rohrleitungen - Umhüllungen für Schweißverbindungen

This European Standard was approved by CEN on 9 December 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

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

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Contents

Foreword

This European Standard (EN 10329:2006) has been prepared by Technical Committee ECISS/TC 29 “Steel tubes and fittings for steel tubes”, the secretariat of which is held by UNI.

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 July 2006, and conflicting national standards shall be withdrawn at the latest by July 2006.

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

1 Scope

This European Standard specifies the application and related testing of the corrosion protection coatings applied to steel surfaces left bare after the tubes and fittings (components) are joined by welding.

It defines the different types of coatings for buried and immersed pipelines defined in Table 1.

This European Standard applies to seamless or welded steel tubes used in the construction of pipelines for the conveyance of fluids.

Components coated with this type of coating may be further protected by means of cathodic protection.

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10204, *Metallic products — Types of inspection documents*

EN 10288, *Steel tubes and fittings for onshore and offshore pipelines — External two layer extruded polyethylene based coatings*

EN 10289, *Steel tubes and fittings for onshore and offshore pipelines — External liquid applied epoxy and epoxy-modified coatings*

EN 10290, *Steel tubes and fittings for onshore and offshore pipelines — External liquid applied polyurethane and polyurethane-modified coatings*

EN 10310, *Steel tubes and fittings for onshore and offshore pipelines — Internal and external polyamide powder based coatings*

EN 12068, *Cathodic protection — External organic coatings for the corrosion protection of buried or immersed steel pipelines used in conjunction with cathodic protection — Tapes and shrinkable materials*

EN ISO 306, *Plastics — Thermoplastic materials — Determination of Vicat softening temperature (VST) (ISO 306:2004)*

EN ISO 527-3, *Plastics — Determination of tensile properties — Part 3: Test conditions for films and sheets (ISO 527-3:1995)*

EN ISO 868, *Plastics and ebonite — Determination of indentation hardness by means of a durometer (Shore hardness) (ISO 868:2003)*

EN ISO 1133, *Plastics — Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics (ISO 1133:2005)*

EN ISO 1183-1, *Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pyknometer method and titration method (ISO 1183-1:2004)*

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

EN ISO 2811-1, *Paints and varnishes — Determination of density — Part 1: Pyknometer method (ISO 2811-1:1997)*

EN ISO 2815, *Paints and varnishes — Buchholz indentation test (ISO 2815:2003)*

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)*

ISO 11357-2, *Plastics — Differential scanning calorimetry (DSC) — Part 2: Determination of glass transition temperature*

3 Terms and definitions

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

3.1
manufacturer
supplier of the coating material in a condition suitable for application to the product to be coated

3.2
coater
company that applies the coating material to the components to be coated in accordance with the provisions of this European Standard or the special requirements given in the tender specification and in the order

3.3
purchaser
company that buys the applied coating and/or coated pipeline

3.4
maximum operating temperature
maximum service temperature of the medium being carried by the buried or submersed coated pipeline

4 Information to be supplied by the purchaser

4.1 Mandatory

The purchaser shall state in the inquiry and order the following information:

— joints coated in accordance with this European Standard shall be designated by reference to this European Standard followed by the temperature class and the mechanical resistance class if applicable;

EXAMPLE 5 000 m of tube – EN 10224 of 406, 4-4,0 – coating of the joints EN 10329;

— type of coating material in accordance with Table 1;

— acceptability of repairs (see 6.6);

— maximum number and dimensions of repairs (if allowed – see 6.6);

— maximum operating temperature.

4.2 Options to be indicated by the purchaser

— type of test certificate when different from 5.3.2;

— repair procedure (see 6.6);

— minimum thickness of the coating (see 7.1.6.2 and 7.3.6.2);

— overlap of the factory applied coating (see 7.1.6.4, 7.2.6.4 and 7.3.6.4);