

Steel tubes and fittings for onshore and offshore pipelines - External liquid applied polyurethane and polyurethane-modified coatings

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 10290:2002 sisaldab Euroopa standardi EN 10290:2002 ingliskeelset teksti. Käesolev dokument on jõustatud 18.10.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 10290:2002 consists of the English text of the European standard EN 10290:2002. This document is endorsed on 18.10.2002 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: The standard defines the requirements of liquid applied external coating, polyurethane (PUR) and polyurethanemodified (PUR-MOD), for the corrosion protection of tubes and pipeline fittings. The coating in this standard can be applied to longitudinally or spirally welded and to seamless steel tubes and fittings used for the construction of pipelines for conveying liquids or gases	Scope: The standard defines the requirements of liquid applied external coating, polyurethane (PUR) and polyurethanemodified (PUR-MOD), for the corrosion protection of tubes and pipeline fittings. The coating in this standard can be applied to longitudinally or spirally welded and to seamless steel tubes and fittings used for the construction of pipelines for conveying liquids or gases
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Võtmesõnad: offshore, pipe coatings, pipelines, pipes, plastic coatings, plastics, polyurethane, sheathings, specification (approval), specifications, steel pipes, steel tubes, steels, testing, tubes, underground, water pipelines

Hinnagrupp S

ICS 23.040.99; 25.220.60

English version

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

Tubes et raccords en acier pour canalisations enterrées et
immergées - Revêtements externes en polyuréthane ou
polyuréthane modifié liquides

Stahlrohre und -formstücke für On- und Offshore-verlegte
Rohrleitungen - Umhüllung (Außenbeschichtung) mit
Polyurethan und polyurethan-modifizierten Materialien

This European Standard was approved by CEN on 11 April 2002.

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, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
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Contents

	page
Foreword.....	5
1 Scope	6
2 Normative references	6
3 Terms, definitions and symbols	7
3.1 Terms and definitions.....	7
3.2 Symbols	7
4 Coating materials	7
4.1 General.....	7
4.2 Technical specification	7
4.3 Packaging	9
4.4 Quality assurance	9
5 Information to be supplied by the purchaser.....	9
5.1 Mandatory	9
5.2 Options to be indicated by the purchaser	10
6 Application of the coating	10
6.1 Surface preparation	10
6.2 Composition of the coating	11
7 Requirements of the applied coating.....	12
7.1 General.....	12
7.2 Minimum dry thickness of the coating system.....	13
7.3 Hardness Shore "D".....	13
7.4 Appearance and continuity	13
7.5 Cut back at the ends	13
7.6 Holiday detection	13
7.7 Impact resistance.....	13
7.8 Adhesion test - Resistance to removal	14
7.9 Adhesion test - Pull-off method.....	14
7.10 Cathodic disbondment.....	14
7.11 Specific electrical insulation resistance.....	14
7.12 Adhesion test after immersion in tap water	15
7.13 Indentation resistance	15
7.14 Thermal ageing.....	15
7.15 Flexibility.....	15
7.16 Infra-red scan	15
7.17 Elongation.....	16
8 Inspection	17
8.1 General.....	17
8.2 Documents.....	17
8.3 Sampling	17
8.4 Nature and frequency of testing and control	17
8.5 Retests	19
9 Repairs	19
10 Marking	20
11 Handling, transportation and storage.....	20
11.1 Handling.....	20
2	

11.2	Transportation to the storage area	20
11.3	Storage.....	20
11.4	Loading of components for delivery.....	20
Annex A	(normative) Dry thickness of the coating system.....	21
A.1	General.....	21
A.2	Apparatus	21
A.3	Procedure	21
A.4	Results	21
Annex B	(normative) Holiday detection test.....	22
B.1	General.....	22
B.2	Apparatus	22
B.3	Procedure	22
B.4	Results	22
Annex C	(normative) Impact test	23
C.1	General.....	23
C.2	Apparatus	23
C.3	Procedure	23
C.4	Results	24
Annex D	(normative) Adhesion test - Resistance to removal	25
D.1	General.....	25
D.2	Apparatus	25
D.3	Procedure	25
D.4	Results	26
Annex E	(normative) Cathodic disbondment test	27
E.1	Principle.....	27
E.2	Apparatus	27
E.3	Sampling	28
E.4	Procedure	29
E.5	Investigation procedure	29
E.6	Results	29
Annex F	(normative) Specific electrical insulation resistance test	33
F.1	Test at ambient temperature ((23 ± 2) °C)	33
F.2	Test at maximum service temperature	34
Annex G	(normative) Adhesion test after immersion tap water	37
G.1	General.....	37
G.2	Apparatus	37
G.3	Procedure	37
G.4	Results	37
Annex H	(normative) Indentation test	38
H.1	General.....	38
H.2	Apparatus	38
H.3	Procedure	38
H.4	Results	38
Annex J	(normative) Thermal ageing	39
J.1	General.....	39
J.2	Apparatus	39
J.3	Sampling	39
J.4	Procedure	39
J.5	Results	39
Annex K	(normative) Flexibility.....	40
K.1	General.....	40
K.2	Apparatus	40
K.3	Procedure	40

K.4 Results42

Annex L (normative) Types of inspection documents.....43

Bibliography44

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Foreword

This document EN 10290:2002 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 February 2003, and conflicting national standards shall be withdrawn at the latest by February 2003.

The annexes A to L 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, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies the requirements of liquid applied external coating, polyurethane (PUR) and polyurethane-modified (PUR-MOD), for the corrosion protection of tubes and pipeline fittings.

The coating in this standard can be applied to longitudinally or spirally welded and to seamless steel tubes and fittings used for the construction of pipelines for conveying liquids or gases.

In accordance with the elongation properties, if the component has to be cold bent the coating shall be applied after bending unless otherwise approved by the purchaser.

The coating shall consist normally of one layer of liquid product, applied by brush or by an airless spray technique.

Other application methods can be recommended by the product manufacturer, in accordance with the kind of product (spatula, injection, spreading, etc.).

This coating can be used for the protection of buried or submerged steel tubes for service at the following temperatures and with two thickness classes A (1 000 µm) and B (1 500 µm) based on the following combination. Lower thickness can be agreed between the coating manufacturer and the purchaser.

- type 1 : - 20 °C to 40 °C, thickness class A or B
- type 2 : - 20 °C to 60 °C, thickness class B
- type 3 : - 20 °C to 80 °C, thickness class B

Other temperatures can be agreed; in this case, tests shall be carried out at the required temperature.

In this standard the word components is used for tubes and fittings.

Frequencies of tests on fittings shall be agreed by the parties at the ordering stage.

Components coated with these types of coatings may be further protected by means of cathodic protection.

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 amendments or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 10021, *General technical delivery requirements for steel and iron products*.

EN 24624, *Paints and varnishes - Pull-off test (ISO 4624:1978)*.

ISO 527, *Plastics - Determination of tensile properties*.

EN ISO 868, *Plastics and ebonite - Determination of indentation hardness by means of a durometer (Shore hardness) (ISO 868:1985)*.

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

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)*.