

**Petroleum and natural gas industries -
External coatings for buried or submerged
pipelines used in pipeline transportation
systems - Part 2: Fusion-bonded epoxy
coatings**

Petroleum and natural gas industries - External
coatings for buried or submerged pipelines used
in pipeline transportation systems - Part 2:
Fusion-bonded epoxy coatings

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

<p>Käesolev Eesti standard EVS-EN ISO 21809-2:2008 sisaldab Euroopa standardi EN ISO 21809-2:2007 ingliskeelset teksti.</p>	<p>This Estonian standard EVS-EN ISO 21809-2:2008 consists of the English text of the European standard EN ISO 21809-2:2007.</p>
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ICS 75.200

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English Version

Petroleum and natural gas industries - External coatings for buried or submerged pipelines used in pipeline transportation systems - Part 2: Fusion-bonded epoxy coatings (ISO 21809-2:2007)

Industries du pétrole et du gaz naturel - Revêtements externes des conduites enterrées ou immergées utilisées dans les systèmes de transport par conduites - Partie 2: Revêtements à base de résine époxydique appliquée par fusion (ISO 21809-2:2007)

Erdöl- und Erdgasindustrie - Umhüllungen für erd- und wasserverlegte Rohrleitungen in Transportsystemen - Teil 2: Epoxipulverbeschichtungen (ISO 21809-2:2007)

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Foreword

This document (EN ISO 21809-2:2007) has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum and natural gas industries" in collaboration with 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of an identical text or by endorsement, at the latest by June 2008, and conflicting national standards shall be withdrawn at the latest by June 2008.

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Endorsement notice

The text of ISO 21809-2:2007 has been approved by CEN as a EN ISO 21809-2:2007 without any modification.

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Introduction

Users of this part of ISO 21809 should be aware that further or differing requirements might be needed for individual applications. This part of ISO 21809 is not intended to inhibit a vendor from offering, or the purchaser from accepting, alternative equipment or engineering solutions for the individual application. This can be particularly applicable if there is innovative or developing technology. If an alternative is offered, the vendor should identify any variations from this part of ISO 21809 and provide details.

Petroleum and natural gas industries — External coatings for buried or submerged pipelines used in pipeline transportation systems —

Part 2: Fusion-bonded epoxy coatings

1 Scope

This part of ISO 21809 specifies the requirements for qualification, application, testing and handling of materials for plant application of single-layer fusion-bonded epoxy (FBE) coatings applied externally for the corrosion protection of bare steel pipe for use in pipeline transportation systems for the petroleum and natural gas industries as defined in ISO 13623.

High-temperature coatings with a glass transition of above 120 °C or FBE primer coatings for three- or multi-layer polyethylene or polypropylene coatings are not covered by this part of ISO 21809.

NOTE Pipes coated in accordance with this part of ISO 21809 are considered suitable for additional protection by means of cathodic protection.

2 Normative references

The following referenced documents are indispensable for the application 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 31-0:1992, *Quantities and units — Part 0: General principles*

ISO 8130-2, *Coating powders — Part 2: Determination of density by gas comparison pyknometer (referee method)*

ISO 8130-3, *Coating powders — Part 3: Determination of density by liquid displacement pyknometer*

ISO 8501-1:2007, *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 8502-3, *Preparation of steel substrates before application of paint and related products — Tests for the assessment of surface cleanliness — Part 3: Assessment of dust on steel surfaces prepared for painting (pressure-sensitive tape method)*

ISO 8502-6, *Preparation of steel substrates before application of paints and related products — Tests for the assessment of surface cleanliness — Part 6: Extraction of soluble contaminants for analysis — The Bresle method*

ISO 8502-9, *Preparation of steel substrates before application of paints and related products — Tests for the assessment of surface cleanliness — Part 9: Field method for the conductometric determination of water-soluble salts*

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 8503-5, *Preparation of steel substrates before application of paints and related products — Surface roughness characteristics of blast-cleaned steel substrates — Part 5: Replica tape method for the determination of the surface profile*

ISO 10474:1991, *Steel and steel products — Inspection documents*

ISO 11124 (all parts), *Preparation of steel substrates before application of paints and related products — Specifications for metallic blast-cleaning abrasives*

ISO 11357-1, *Plastics — Differential scanning calorimetry (DSC) — Part 1: General principles*

ISO 13623:2000, *Petroleum and natural gas industries — Pipeline transportation systems*

EN 10204:2004, *Metallic products — Types of inspection documents*

SSPC-AB 1¹⁾, *Mineral and Slag Abrasives*

SSPC-AB 2, *Cleanliness of Recycled Ferrous Metallic Abrasives*

SSPC-AB 3, *Ferrous Metallic Abrasive*

SSPC-SP 1, *Solvent cleaning*

3 Terms and definitions

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

3.1

applicator

company that undertakes the coating application in accordance with the provisions of this part of ISO 21809

3.2

batch

quantity of epoxy powder produced using the same formulation and raw materials of the same source during a continuous production run of not more than 8 h

3.3

batch certificate

certificate of analysis issued by the manufacturer

3.4

by agreement

agreed between manufacturer and purchaser

[ISO 14313:—]

3.5

certificate of compliance

document issued according to ISO 10474 or EN 10204 stating compliance with the purchase order for coated pipes, but without mention of any test results, issued in accordance with the purchasing requirements

3.6

cutback

length of pipe left uncoated at each end for joining purposes

1) SSPC: The Society for Protective Coatings, 40 24th Street, 6th Floor, Pittsburg, PA 15222-4656, USA.