



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 12068:1999

ICS 23.040.99
25.220.60

**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**

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Descriptors: metal protection, corrosion prevention, electrochemical corrosion, organic coatings, adhesive tapes, cathodic protection, buried pipes, submerged construction, steel tubes, specifications, operating requirements, quality, conformity tests, tests

English version

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

Protection cathodique - Revêtements organiques extérieurs pour la protection contre la corrosion de tubes en acier enterrés ou immergés en conjonction avec la protection cathodique - Bandes et matériaux rétractables

Kathodischer Korrosionsschutz - Organische Umhüllungen für den Korrosionsschutz von in Böden und Wässern verlegten Stahlrohrleitungen im Zusammenwirken mit kathodischem Korrosionsschutz - Bänder und schrumpfende Materialien

This European Standard was approved by CEN on 18 July 1998.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 219 "Cathodic protection", the secretariat of which is held by BSI.

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 1999, and conflicting national standards shall be withdrawn at the latest by February 1999.

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, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This European Standard gives requirements for organic coatings based on tapes or shrinkable materials for corrosion protection of buried or immersed pipelines, used in conjunction with cathodic protection.

This European Standard has been taken over from WG 6 of CEN/TC 262/SC 2 "Cathodic Protection", the secretariat of which is held by DIN. There is a liaison between CEN/TC 262/SC 2/WG 6 and ECISS/TC 29/SC 4, to harmonize the standards prepared in both committees.

This is primarily a functional standard giving the requirements for the material properties necessary to ensure the function of the coating.

To ensure compatibility of the organic coatings with cathodically protected pipelines, tests of cathodic disbonding resistance at continuous operating temperature are specified. Test requirements are given for 23 °C but due to limited data available to WG 6 it is intended that values for higher temperatures will be established after five years.

Attention is drawn to the fact that degradation of the properties of a coating may occur following attack from microbiological matter. Work is to be undertaken in Europe to produce a suitable test method but this may take several years. It is considered that a burial in soil is the only satisfactory test method. The described test method is proposed for the interim period of five years.

1 Scope

This standard specifies the functional requirements and test methods for external organic coatings based on tapes or shrinkable materials to be used for corrosion protection of buried and immersed steel pipelines in conjunction with cathodic protection.

It classifies coatings by increasing mechanical resistance and operating temperatures. Coatings for special installation conditions are also considered. A comprehensive classification of coatings in relation to functional requirements is defined. Tapes and shrinkable materials which meet the requirements of these classes can belong to various types defined in this standard.

This European standard is not applicable to special applications in off-shore and stress loads caused by frequent temperature changes.

Specifications of fillers are outside the scope of this European standard.

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.

prEN 1427

Petroleum products – Bitumen and bituminous binders – Determination of the softening point – Ring and ball method

EN ISO 527-3:1995

Plastics – Determination of tensile properties – Part 3: Test conditions for films and sheets (ISO/DIS 527-3:1995)

EN ISO 8503-2

Preparation of steel substrates before application of paints and related products – Surface roughness characteristics of blast-cleaned steel substrates – Part 2: Method for the grading of surface profile of abrasive blast-cleaned steel – Comparator procedure (ISO 8503-2:1988)

EN ISO 9000-1

Quality management and quality assurance standards – Guidelines for selection and use

EN ISO 9000-2

Quality management and quality assurance standards – Generic guidelines for the application of ISO 9001, ISO 9002 and ISO 9003

EN ISO 9001

Quality systems – Model for quality assurance in design/development, production, installation and servicing

EN ISO 9002

Quality systems – Model for quality assurance in production, installation and servicing

EN ISO 9003

Quality systems – Model for quality assurance in final inspection and test

ISO/DIS 188

Rubber, vulcanised – Accelerated ageing and heat resistance tests

ISO 1523

Paints, varnishes, petroleum and related products – Determination of flashpoint – Closed cup equilibrium method

ISO 2808

Paints and varnishes – Determination of film thickness

ISO 2811

Paints and varnishes – Determination of density

ISO 3251

Paints and varnishes – Determination of non-volatile matter of paints, varnishes and binders for paints and varnishes

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