



Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN 15189:2006

Ductile iron pipes, fittings and accessories - External polyurethane coating for pipes - Requirements and test methods

Tuyaux, raccords et accessoires en fonte
ductile - Revêtement extérieur
polyuréthane des tuyaux - Exigences et
méthodes d'essai

Rohre, Formstücke und Zubehör aus
duktilen Gusseisen -
Polyurethanumhüllung von Rohren -
Anforderungen und Prüfverfahren

11/2006



National Foreword

This European Standard EN 15189:2006 was adopted as Luxembourgish Standard ILNAS-EN 15189:2006.

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

THIS PUBLICATION IS COPYRIGHT PROTECTED

Nothing from this publication may be reproduced or utilized in any form or by any mean - electronic, mechanical, photocopying or any other data carries without prior permission!

EUROPEAN STANDARD ILNAS-EN 15189:2006 **EN 15189**
NORME EUROPÉENNE
EUROPÄISCHE NORM

November 2006

ICS 23.040.01; 25.220.60

English Version

**Ductile iron pipes, fittings and accessories - External
polyurethane coating for pipes - Requirements and test methods**

Tuyaux, raccords et accessoires en fonte ductile -
Revêtement extérieur polyuréthane des tuyaux -
Exigences et méthodes d'essai

Rohre, Formstücke und Zubehör aus duktilem Gusseisen -
Polyurethanumhüllung von Rohren - Anforderungen und
Prüfverfahren

This European Standard was approved by CEN on 11 September 2006.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Ordering information	7
5 Technical Requirements	7
6 Performance Requirements	8
7 Test Methods	9
Annex A (normative) Quality assurance	14
Annex B (normative) Coating application process	16
Annex C (informative) Packaging	18
Bibliography	19

Foreword

This document (EN 15189:2006) has been prepared by Technical Committee CEN/TC 203 “Cast iron pipes, fittings and their joints”, the secretariat of which is held by AFNOR.

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 May 2007, and conflicting national standards shall be withdrawn at the latest by May 2007.

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.

Introduction

This standard is in conformity with the general requirements already established by CEN/TC 164 in the field of water supply (e.g. potable water) and CEN/TC 165 in the field of waste water.

In respect of potential adverse effects on the quality of water intended for human consumption caused by the product covered by this standard:

- a) this standard provides no information as to whether the product may be used without restriction in any of the member states of the EU or EFTA;
- b) it should be noted that, while awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of this product remain in force.

1 Scope

This European standard defines the requirements and test methods applicable to factory applied external polyurethane based coatings for heavy duty (Annex D.3 of EN 545:2002) corrosion protection of buried ductile iron pipes conforming to EN 545, EN 598 and EN 969 for use at operating temperatures up to 50 °C.

This standard does not cover ductile iron pipes protected with zinc with a finishing layer of polyurethane.

This standard does not cover special activities on site such as tapping, clamping, etc., which could affect the corrosion protection properties of the polyurethane coating. These operations should be covered in the laying instructions supplied by manufacturers of clamps, house connection saddles, etc. and any relevant user procedures.

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.

EN 545:2002, *Ductile iron pipes, fittings, accessories and their joints for water pipelines - Requirements and test methods*

EN 598, *Ductile iron pipes, fittings, accessories and their joints for sewerage application - Requirements and test methods*

EN 969, *Ductile iron pipes, fittings, accessories and their joints for gas pipelines - Requirements and test methods*

EN 14901, *Ductile iron pipes, fittings and accessories - Epoxy coating (heavy duty) of ductile iron fittings and accessories - Requirements and test methods*

EN ISO 62, *Plastics - Determination of water absorption (ISO 62:1999)*

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 4624, *Paints and varnishes; Pull-off test for adhesion (ISO 4624:2002)*

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 8503–1, *Preparation of steel substrates before application of paints and related products - Surface roughness characteristics of blast-cleaned steel substrates - Part 1: Specifications and definitions for ISO surface profile comparators for the assessment of abrasive blast-cleaned surfaces (ISO 8503-1:1988)*