

Ductile iron pipes, fittings and accessories -
Requirements and test methods for organic linings of
ductile iron pipes and fittings - Part 1: Polyurethane
lining of pipes and fittings

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15655-1:2018 sisaldab Euroopa standardi EN 15655-1:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 15655-1:2018 consists of the English text of the European standard EN 15655-1:2018.
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English Version

**Ductile iron pipes, fittings and accessories - Requirements
and test methods for organic linings of ductile iron pipes
and fittings - Part 1: Polyurethane lining of pipes and
fittings**

Tuyaux, raccords et accessoires en fonte ductile -
Prescriptions et méthodes d'essai relatives aux
revêtements organiques des tuyaux et raccords en
fonte ductile - Partie 1 : Revêtement en polyuréthane
des tuyaux et raccords

Rohre, Formstücke und Zubehörteile aus duktilem
Gusseisen - Polyurethan-Auskleidung von Rohren und
Formstücken - Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 9 November 2018.

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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 15655-1:2018) 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of an identical text or by endorsement, at the latest by June 2019, and conflicting national standards shall be withdrawn at the latest by June 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 15655:2009.

The main changes to EN 15655:2009 are:

- a) EN 15655 has been split into two parts. This part covers polyurethane lining of pipes and fittings;
- b) in Clause 3 the definition of “minimum lining thickness” has been revised (3.5);
- c) in 5.1 the values for the surface roughness have been changed;
- d) in 5.1 the surface temperature to be maintained above the dew point has been changed;
- e) in 5.2.2 Tables 1 and 2 for the minimum lining thickness have been revised;
- f) in 5.6 the technical requirements for the non-porosity have been revised;
- g) in 5.7 the requirement for the hardness 70 Shore D has been deleted;
- h) in 6.5 the ambient temperature has been increased;
- i) in 6.7 a reference to the CEN/TR 16950 “Ductile iron pipes, fittings and accessories — Sanitary characteristics and test methods” was added in a NOTE;
- j) in 7.1.8 the requirements for testing of non-porosity has been revised;
- k) in Table A.2 the requirements for the routine test of non-porosity (No.1) have been revised;
- l) the requirements for photoaging have been deleted;
- m) addition to informative annex that the manufacturer should provide infrared scans.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the 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) No information is provided 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 document defines the requirements and test methods applicable to factory applied internal polyurethane heavy duty corrosion protection of ductile iron pipes and fittings conforming to EN 545, EN 598 and EN 969.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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, *Ductile iron pipes, fittings, accessories and their joints for water pipelines - Requirements and test methods*

EN 598:2007+A1:2009, *Ductile iron pipes, fittings, accessories and their joints for sewerage applications - 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 4624, *Paints and varnishes - Pull-off test for adhesion (ISO 4624)*

EN ISO 62:2008, *Plastics — Determination of water absorption (ISO 62:2008)*

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

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

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)*

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)*