



National Standards Authority of Ireland

IRISH STANDARD

**I.S. CEN/TR 15545:2006**

ICS 23.040.10  
23.040.40

National Standards  
Authority of Ireland  
Glasnevin, Dublin 9  
Ireland

Tel: +353 1 807 3800  
Fax: +353 1 807 3838  
<http://www.nsai.ie>

**Sales**

<http://www.standards.ie>

**GUIDE TO THE USE OF EN 545**

*This Irish Standard was  
published under the  
authority of the National  
Standards Authority of  
Ireland and comes into  
effect on:*

*16 February 2007*

**NO COPYING WITHOUT NSAI  
PERMISSION EXCEPT AS  
PERMITTED BY COPYRIGHT  
LAW**

© NSAI 2006

**Price Code F**

Údarás um Chaighdeáin Náisiúnta na hÉireann



TECHNICAL REPORT  
RAPPORT TECHNIQUE  
TECHNISCHER BERICHT

**CEN/TR 15545**

December 2006

---

ICS 23.040.10; 23.040.40

English Version

**Guide to the use of EN 545**

Guide d'utilisation de l'EN 545

Anleitung zur Anwendung der Norm EN 545

This Technical Report was approved by CEN on 28 August 2006. It has been drawn up by the Technical Committee CEN/TC 203.

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
<b>1 Scope .....</b>	<b>4</b>
<b>4.1.4 Materials in contact with water intended for human consumption .....</b>	<b>4</b>
<b>6.6 Zinc mass .....</b>	<b>4</b>
<b>7 Performance test methods .....</b>	<b>5</b>
<b>7.1 Compressive strength of the cement mortar lining .....</b>	<b>5</b>
<b>7.2 Leak tightness of flexible joints to positive internal pressure.....</b>	<b>5</b>
<b>7.3 Leak tightness of flexible joints to negative internal pressure.....</b>	<b>6</b>
<b>7.4 Leak tightness of flexible push-in joints to positive external pressure.....</b>	<b>6</b>
<b>7.5 Leak tightness of flexible joints to dynamic internal pressure.....</b>	<b>6</b>
<b>7.6 Leak tightness and mechanical resistance of flanged joints.....</b>	<b>6</b>
<b>7.7 Leak tightness and mechanical resistance of screwed and welded flanges .....</b>	<b>6</b>
<b>Annex F (informative) Quality assurance.....</b>	<b>7</b>
<b>F.1 Performance tests .....</b>	<b>7</b>
<b>F.2 Manufacturing process .....</b>	<b>7</b>
<b>F.2.1 Quality Control.....</b>	<b>7</b>
<b>F.2.2 Initial performance testing.....</b>	<b>7</b>
<b>F.2.3 Factory Production Control System .....</b>	<b>8</b>
<b>F.2.3.1 Organisation.....</b>	<b>8</b>
<b>F.2.3.2 Control system.....</b>	<b>8</b>
<b>F.2.3.3. Document control.....</b>	<b>10</b>
<b>F.2.3.4 Process control.....</b>	<b>11</b>
<b>F.2.3.5 Inspection and testing .....</b>	<b>11</b>
<b>F.2.3.6 Non-conforming products .....</b>	<b>11</b>
<b>Bibliography .....</b>	<b>12</b>

## **Foreword**

This document (CEN/TR 15545:2006) has been prepared by Technical Committee CEN/TC 203 “Cast iron pipes, fittings and their accessories”, the secretariat of which is held by AFNOR.

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

EN 545 deals with components of piping systems for water - pipes, fittings and joints – which, together, form the part of a water network. Each of these components can be manufactured by a different supplier, which is often the reality; the performances and the tests required by EN 545, although perfectly comprehensive, are not always formulated with enough accuracy to be easily used in every real situation occurring the market.

In regard to quality assurance, the attestations and certifications of conformity to the standards available on the markets:

- attestation of compliance to the performance tests;
- certification of conformity of the products of a batch;
- certification of conformity to EN ISO 9001 of the supplier;
- national quality or conformity marks;
- third party certification of conformity of products to a standard,
- self-declaration of conformity to a standard by the supplier for products that he sells,

have different meanings for the customer, who generally needs all products to be fully in compliance with this standard.

## **CEN/TR 15545:2006 (E)**

### **1 Scope**

EN 545 specifies the requirements and associated test methods applicable to ductile iron pipes, fittings, accessories and their joints for the construction of pipelines:

- to convey water (e.g. potable water);
- with or without pressure;
- to be installed below or above ground.

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

- 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;
- 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.

This technical report:

- explains in more detail the process of testing for the performance tests;
- explains in more detail the definitions of the different types/levels of attestation to enable customers to ensure their requirements are fulfilled;
- explains in more detail the ways of certification of conformity with EN 545 for a reliable evaluation of the performance of the products.

In order to make the use of this Technical Report easier, the clauses of this document refer to the corresponding clause numbers in EN 545.

#### **4.1.4 Materials in contact with water intended for human consumption**

A comprehensive potability regulation concerning components of pipes systems means:

- regulatory obligation ( i.e.: decree, law....);
- technical specifications;
- tests methods to verify the compliance with the technical specifications;
- directory of approved laboratories able to carry out these tests.

On October the 1<sup>st</sup> 2005, there was a national regulation in the following countries: Austria, France, Germany, Italy, Netherlands, Switzerland and United Kingdom.

In all cases, the national regulations remain in force and must be followed.

#### **6.6 Zinc mass**

EN 545 states that a rectangular token of known weight per unit area shall be attached longitudinally along the axis of the pipe before passing through the coating equipment. After zinc coating and trimming, the size of the

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
  - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-