



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 12842:2000

ICS 23.040.40

National Standards
Authority of Ireland
Dublin 9
Ireland

Tel: (01) 807 3800
Tel: (01) 807 3838

**DUCTILE IRON FITTINGS FOR PVC-U OR PE
PIPING SYSTEMS - REQUIREMENTS AND
TEST METHODS**

*This Irish Standard was
published under the
authority of the National
Standards Authority of
Ireland
and comes into effect on:
June 30, 2000*

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

© NSAI 2000

Price Code M

Údarás um Chaighdeán Náisiúnta na hÉireann

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12842

March 2000

ICS 23.040.40

English version

**Ductile iron fittings for PVC-U or PE piping systems -
Requirements and test methods**

Raccords en fonte ductile pour systèmes de canalisations en
PVC-U ou en PE - Prescriptions et méthodes d'essai

Duktile Gußformstücke für PVC-U- oder PE-
Rohrleitungssysteme - Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 1 March 2000.

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
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword.....	3
Introduction	4
1 Scope	4
2 Normative references	5
3 Definitions.....	5
4 Technical requirements.....	7
4.1 General.....	7
4.2 Dimensional requirements.....	8
4.3 Mechanical properties of ductile iron	9
4.4 Coatings.....	9
4.5 Marking	10
4.6 Leaktightness	10
5 Performance requirements for joints.....	11
5.1 General.....	11
5.2 Flexible joints	11
5.3 Flanged joints.....	14
6 Test Methods	14
6.1 Tensile testing	14
6.2 Brinell hardness.....	16
6.3 Works leaktightness test.....	16
7 Type tests	16
7.1 Leaktightness of joints to internal hydrostatic pressure	16
7.2 Leaktightness of joints to negative internal pressure	17
7.3 Leaktightness of joints to cyclic internal pressure	17
8 Tables of dimensions	19
8.1 Dimensions of sockets for push-in flexible joints.....	19
8.2 Dimensions of sockets for mechanical flexible joints	20
8.3 Dimensions of fittings	21
Annex A (informative) Quality assurance	37

Foreword

This European Standard 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 September 2000, and conflicting national standards shall be withdrawn at the latest by September 2000.

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.

This European Standard was prepared in co-operation with CEN/TC155 "Plastics piping systems".

Annex A of this European Standard is informative.

Introduction

This standard is in conformity with the general requirements already established by CEN/TC 164 in the field of water supply.

In respect of potential adverse effects of 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 specifies the requirements and associated test methods applicable to ductile iron fittings and their joints to be used with poly(vinyl chloride) (PVC-U) pipes or polyethylene (PE) pipes, in conformity with EN 1452-1 to 7 and prEN 12201-1 to 7 respectively, for the construction of pipelines :

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

This standard is not intended to cover sewerage applications, where additional requirements may be necessary.

This standard specifies requirements for materials, dimensions and tolerances, mechanical properties and standard coatings of ductile iron fittings. It also gives performance requirements for all components, including restrained and non-restrained flexible joints.

This standard covers fittings cast by any type of foundry process or manufactured by fabrication of cast components, as well as corresponding joints, in a size range extending from DN 40 to DN 700, to be used with pipes of external diameter from 40 mm to 710 mm.

This standard applies to fittings which are :

- manufactured with socketed ends (for push-in or mechanical joints), flanged ends and/or spigot ends for jointing by means of various types of gaskets which are not within the scope of this standard ;
- normally delivered externally and internally coated ;
- suitable for PE and PVC-U pipes with fluid temperatures between 0°C and 25°C, excluding frost, and for pressures up to 16 bar (PFA). For higher temperatures (up to 45°C for PVC-U or 40°C for PE) the PFA is derated as given in EN 1452 and prEN 12201.

This standard does not cover ductile iron fittings intended to be used with different pipe materials other than PVC-U and PE.

NOTE 1 Temperature limitations and pressure limitations are those coming from the PVC-U or PE pipes.

NOTE 2 In this standard, all pressures are relative gauge pressures, expressed in bars (100 kPa = 1 bar).

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
-