



National Standards Authority of Ireland

IRISH STANDARD

**I.S. EN 13101:2002**

ICS 97.145

**STEPS FOR UNDERGROUND MAN ENTRY  
CHAMBERS - REQUIREMENTS, MARKING,  
TESTING AND EVALUATION OF  
CONFORMITY**

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English version

## Steps for underground man entry chambers - Requirements, marking, testing and evaluation of conformity

Echelons de trou d'homme - Prescriptions, marquage,  
essai, et évaluation de la conformité

Steigeisen für Steigeisengänge in Schächten -  
Anforderungen, Kennzeichnung, Prüfung und Beurteilung  
der Konformität

This European Standard was approved by CEN on 1 August 2002.

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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 Management Centre 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, Malta, Netherlands, Norway, Portugal, 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**

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## EN 13101:2002 (E)

### Foreword

This document (EN 13101:2002) has been prepared by Technical Committee CEN/TC 165, "Waste water engineering" the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by April 2003, and conflicting national standards shall be withdrawn at the latest by July 2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

In this European Standard the Annexes A to F and H are normative and the Annexes G and I are informative.

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

## 1 Scope

This standard specifies general requirements and testing methods for steps manufactured from cast iron, steel or aluminium, for use in manholes and other underground man entry chambers as a means of access.

This standard specifies performance criteria for mechanical stability and resistance providing protection against falling. Corresponding test methods and evaluation of conformity are included.

The steps specified in this European Standard are suitable for use in sewage, surface water and, subject to the requirements of national regulations, potable water environments.

Where steps are to be used in particular corrosive environments, e.g. industrial effluents, additional protection may be required.

This standard does not apply for steps moulded in prefabricated manholes of the same material.

## 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 (including amendments).

EN 197-1, *Cement - Part 1: Composition, specifications and conformity criteria for common cements.*

EN 573-3:1994, *Aluminium and aluminium alloys - Chemical composition and form of wrought products - Part 3: Chemical composition.*

EN 1561, *Founding – Grey cast irons.*

EN 1562, *Founding - Malleable cast irons.*

EN 1563, *Founding - Spheroidal graphite cast irons.*

EN 2101, *Aerospace series; Chromic acid anodizing of aluminium and wrought aluminium alloys.*

EN 2284, *Aerospace series; Sulphuric acid anodizing of aluminium and wrought aluminium alloys.*

EN 10025, *Hot rolled products of non-alloy structural steels; - Technical delivery condition.*

ENV 10080:1995, *Steel for the reinforcement of concrete weldable ribbed reinforcing steel B 500 - Technical delivery conditions for bars, coils and welded fabric.*

EN 10088-1, *Stainless steels - Part 1: List of stainless steels.*

EN 10088-3, *Stainless steels - Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general and construction purposes .*

EN ISO 1461, *Hot dip galvanized coatings on fabricated iron and steel articles – Specifications. (ISO 1461:1999)*

ISO 1183, *Plastics; Methods for determining the density and relative density of non-cellular plastics*

ISO 3599, *Vernier callipers reading to 0,1 and 0,05 mm).*

ISO 3893:1977, *Concrete; Classification by compressive strength.*

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