



National Standards Authority of Ireland

STANDARD

I.S. EN 14396:2004

ICS 97.145

National Standards
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FIXED LADDERS FOR MANHOLES

*This Irish Standard was
published under the
authority of the National
Standards Authority of
Ireland
and comes into effect on:
April 27, 2004*

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EUROPEAN STANDARD

EN 14396

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2004

ICS 97.145

English version

Fixed ladders for manholes

Echelles fixes pour raccords

Ortsfeste Steigleitern für Schächte

This European Standard was approved by CEN on 28 November 2003.

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EN 14396:2004 (E)

Foreword

This document (EN 14396:2004) 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of an identical text or by endorsement, at the latest by July 2004, and conflicting national standards shall be withdrawn at the latest by October 2005.

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.

Annexes A to F are normative.

This document includes a Bibliography.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This standard applies to permanently fixed ladders in manholes. It specifies the performance criteria for the mechanical stability and resistance providing protection against falling.

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

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 353-1, *Personal protective equipment against falls from a height - Part 1: Guided type fall arresters including a rigid anchor line*

EN 365, *Personal protective equipment against falls from a height — General requirements for instructions for use and for marking.*

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

ENV 10080, *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 and sections for general purposes.*

EN 10204, *Metallic products - Types of inspection documents.*

EN 13706, *Reinforced plastic composites — Specification for pultruded profiles (all parts).*

EN ISO 179-1:2000, *Plastics — Determination of Charpy impact properties — Part 1: Non- instrumented impact test (ISO 179-1:2000).*

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

EN ISO 4892-2:1999, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc sources (ISO 4892-2:1994).*

EN ISO 14125:1998, *Fibre-reinforced plastic composites — Determination of flexural properties (ISO 14125:1998).*

3 Terms, definitions and symbols

3.1 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

3.1.1

fixed ladder with two stringers

ladder, which is stationary and where the rungs are arranged between and attached to the stringers and the stringers carry the load

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