National Standards Authority of Ireland

IRISH STANDARD

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PLASTICS PIPING AND DUCTING SYSTEMS - SYSTEMS OUTSIDE BUILDING STRUCTURES FOR THE CONVEYANCE OF WATER OR SEWAGE - PRACTICES FOR INSTALLATION ABOVE AND BELOW GROUND

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English version

Plastics piping and ducting systems - Systems outside building structures for the conveyance of water or sewage - Practices for installation above and below ground

Systèmes de canalisations et de gaines en plastique - Système d'adduction d'eau ou d'assainissement à l'extérieur de la structure des bâtiments - Pratiques pour la pose en aérien et en enterré

Kunststoff-Rohrleitungs- und Schutzrohr-Systeme - Systeme außerhalb der Gebäudestruktur zum Transport von Wasser oder Abwasser - Verfahren zur ober- und unterirdischen Verlegung

This European Prestandard (ENV) was approved by CEN on 5 July 2001 as a prospective standard for provisional application

The period of validity of this ENV is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the ENV can be converted into a European Standard.

CEN members are required to announce the existence of this ENV in the same way as for an EN and to make the ENV available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the ENV) until the final decision about the possible conversion of the ENV into an EN is reached.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This European Prestandard has been prepared by Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems ", the secretariat of which is held by NEN.

This prestandard is based on the results of the work being undertaken in ISO/TC 138 "Plastics pipes, fittings and valves for the transport of fluids", which is a Technical Committee of the International Organization for Standardization (ISO) (see bibliography), modified as necessary to be applicable to piping systems of any plastics materials and any relevant application.

This prestandard is a guidance document only. It provides a set of guidelines which gives correct practices for installation of plastics piping and ducting systems outside building structures above and below ground.

It relates to standards on general functional requirements and codes of practice.

CEN/TC 164 and CEN/TC 165 are preparing standards covering pipe laying and pipe design. When these standards are published this prestandard will be revised to take account of those standards.

It includes the following:

Annex A, which is normative, gives criteria for classification of soils;

Annex B, which is normative, details calculation procedures for assessing thermal effects on piping designs and/or layouts above ground;

Annex C, which is informative, describes the behaviour of buried flexible pipes;

Annex D, which is normative, describes joints and examples thereof;

Annex E, which is normative, details calculation procedures for assessing the need to apply the beam-column theory and determining the maximum deflection of above ground pipes;

Bibliography.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this European Prestandard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This prestandard contains guidance for installation procedures for plastics piping systems and their components intended to be used above or below ground for pressure and non-pressure applications outside building structures. It is intended to be used in conjunction with general standards for installation recommendations, for example those issued by CEN/TC 164 "Water supply" and CEN/TC 165 "Waste water engineering".

This prestandard includes recommendations for the pipe surround and backfilling procedures but not road base and road sub-base details. Attention is drawn to any national regulations which may cover these or other aspects of installation.

This prestandard does not cover matters relating to renovation of existing pipeline systems using lining techniques, or replacement of existing pipeline systems using trenchless techniques.

This prestandard is intended to be used by authorities, design engineers, installation contractors and manufacturers.

In this prestandard, much of the guidance is expressed as requirements, e.g. by use of "shall" or by instructions in the imperative. It is strongly recommended that these be followed whenever applicable.

Other guidance is presented for consideration as a matter of judgement in each case, e.g. by use of "should".