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TNI	**Potrubné a ochranné rúrové systémy z termoplastov Vsakovacie a retenčné systémy pre zrážkovú vodu Pokyny na podzemné inštalovanie**	**TNI CEN/TR 17179** 73 6742

Thermoplastics piping and ducting systems - Rainwater infiltration and storage attenuation systems - Practices for underground installation

Táto technická normalizačná informácia obsahuje anglickú verziu CEN/TR 17179:2018.
This Technical standard information includes the English version of CEN/TR 17179:2018.

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TECHNICAL REPORT

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English Version

Thermoplastics piping and ducting systems - Rainwater infiltration and storage attenuation systems - Practices for underground installation

Systèmes de canalisations et de gaines en matières thermoplastiques - Pratiques pour la pose en enterrée

Einbauanleitungen für Rohrleitungs-, Regenwasserversickerungs- und Regenrückhaltungshaltesysteme außerhalb von Gebäuden - Verfahren für den Erdeinbau

This Technical Report was approved by CEN on 17 December 2017. It has been drawn up by the Technical Committee CEN/TC 155.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (CEN/TR 17179:2018) has been prepared by Technical Committee CEN/TC 155 “Plastics piping systems and ducting systems”, the secretariat of which is held by NEN.

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

Introduction

Ecological and sustainable rainwater management is an increasingly important subject for communities, designers and other agencies. Due to the increasing amount of impermeable surfaces being created by buildings and roads, rainwater falling in urban areas can have great difficulty in finding its way into the ground or to receiving surface water. This can cause flash flooding, water in basements and other life threatening situations.

Rainwater harvesting, infiltration and decentralized retention of rainwater (attenuation), are examples of ecological and sustainable rainwater management. Excess water from rainwater harvesting systems should be infiltrated into the ground or released in a controlled manner into surface water bodies. Plastic geocellular systems, sometimes referred to as 'boxes', are a preferred solution for temporarily storing rainwater underground. These boxes can be stacked in layers to form underground storage reservoirs (e.g. tanks) able to store run-off from intensive rainfall falling over large surface areas. Plastic boxes have the advantage of being light and easy to install whilst providing a large capacity for storage relative to their overall volume. Some boxes are strong enough to be installed under roads, parking areas and other landscape features. They can also be recycled very easily.

This Technical Report contains guidance for installation procedures for thermoplastic infiltration and attenuation systems outside building structures, which should be completed in conjunction with product specific installation instructions.

This Technical Report is a guidance document only. It provides a set of general guidelines which gives best practice for underground installation of thermoplastic infiltration and attenuation systems outside building structures.

This Technical Report includes recommendations for the reservoir 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 Technical Report is intended to be used by local authorities, design engineers, installation contractors and manufacturers.

In this Technical Report, 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".

1 Scope

This Technical Report is applicable to the installation of rainwater infiltration and storage/attenuation systems under gravity.

This Technical Report covers installations including:

— reservoirs made by assembled cuboid shaped thermoplastic boxes;

— integral components;

— ancillary components (e.g. access provisions and connections);

— geotextiles and/or geomembranes;

— embedment and backfill.

These systems are intended for underground use in landscape, pedestrian or vehicular traffic areas and are used outside building structures.

This Technical Report is only applicable to systems containing boxes to create a reservoir where the manufacturer has clearly stated in the installation instructions how the components should be assembled.

This Technical Report is a guidance document. It provides a set of general guidelines which gives best practice for installation.

NOTE 1 It is anticipated that additional recommendations and/or requirements (e.g. design, dimensioning and structural aspects) will be detailed in the relevant standards.

NOTE 2 Attention is drawn to the need to comply with national or local regulations.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1610:2015, *Construction and testing of drains and sewers*

EN 13249, *Geotextiles and geotextile-related products - Characteristics required for use in the construction of roads and other trafficked areas (excluding railways and asphalt inclusion)*