



NSAI
Standards

Irish Standard
I.S. EN 1519-1:2019&AC:2021

Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure -
Polyethylene (PE) - Part 1: Requirements for pipes, fittings and the system

I.S. EN 1519-1:2019&AC:2021

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National Foreword

I.S. EN 1519-1:2019&AC:2021 is the adopted Irish version of the European Document EN 1519-1:2019, Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Polyethylene (PE) - Part 1: Requirements for pipes, fittings and the system

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EUROPEAN STANDARD

EN 1519-1:2019/AC

NORME EUROPÉENNE

March 2021

EUROPÄISCHE NORM

ICS 23.040.01; 91.140.80

English version

Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Polyethylene (PE) - Part 1: Requirements for pipes, fittings and the system

Systèmes de canalisations en plastique pour l'évacuation des eaux-vannes et des eaux usées (à basse et à haute température) à l'intérieur de la structure des bâtiments - Polyéthylène (PE) - Partie 1 : Exigences pour tubes, raccords et le système

Kunststoff-Rohrleitungssysteme zum Ableiten von Abwasser (niedriger und hoher Temperatur) innerhalb der Gebäudestruktur - Polyethylen (PE) - Teil 1: Anforderungen an Rohre, Formstücke und das Rohrleitungssystem

This corrigendum becomes effective on 31 March 2021 for incorporation in the official English version of the EN.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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Ref. No.: EN 1519-1:2019/AC:2021 E

EN 1519-1:2019/AC:2021 (E)

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1 Modification to 9.1, Physical characteristics of pipes

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Table 13 — Physical characteristics of pipes

Characteristic	Requirements	Test parameters		Test method
Longitudinal reversion	≤ 3,0 % The pipe shall exhibit no bubbles or cracks	EITHER		
		Test temperature	(110 ± 2) °C	Method A: Liquid, in accordance with EN ISO 2505
		Immersion time	30 min	
		OR		
Test temperature	(110 ± 2) °C	Method A: Liquid, in accordance with EN ISO 2505		
Immersion time for:	60 min			
e ≤ 8 mm e > 8 mm	120 min			
Melt mass-flow rate (MFR-value)	Permitted deviation when processing the compound into pipe: 0,20 g/10 min ^a	Test temperature	190 °C	EN ISO 1133-1
		Load mass	5 kg	
^a This deviation value should be changed to read a specified percentage value at the next revision of this standard.				

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Table 13 — Physical characteristics of pipes

Characteristic	Requirements	Test parameters		Test method
Longitudinal reversion	≤ 3,0 % The pipe shall exhibit no bubbles or cracks	EITHER		
		Test temperature	(110 ± 2) °C	Method A: Liquid, in accordance with EN ISO 2505
		Immersion time	30 min	
		OR		
		Test temperature	(110 ± 2) °C	Method B: Air, in accordance with EN ISO 2505
		Immersion time for:		
		e ≤ 8 mm	60 min	
		e > 8 mm	120 min	
Melt mass-flow rate (MFR-value)	Permitted deviation max. when processing the compound into a pipe: 0,20 g/10 min ^a	Test temperature	190 °C	EN ISO 1133-1
		Load mass	5 kg	
^a This deviation value should be changed to read a specified percentage value at the next revision of this standard.				

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EUROPEAN STANDARD

EN 1519-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2019

ICS 23.040.01; 91.140.80

Supersedes EN 1519-1:1999

English Version

Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Polyethylene (PE) - Part 1: Requirements for pipes, fittings and the system

Systèmes de canalisations en plastique pour l'évacuation des eaux-vannes et des eaux usées (à basse et à haute température) à l'intérieur de la structure des bâtiments - Polyéthylène (PE) - Partie 1 : Exigences pour tubes, raccords et le système

Kunststoff-Rohrleitungssysteme zum Ableiten von Abwasser (niedriger und hoher Temperatur) innerhalb der Gebäudestruktur - Polyethylen (PE) - Teil 1: Anforderungen an Rohre, Formstücke und das Rohrleitungssystem

This European Standard was approved by CEN on 26 November 2018.

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 CEN-CENELEC Management Centre or to any CEN member.

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EN 1519-1:2019 (E)

European foreword

This document (EN 1519-1:2019) has been prepared by Technical Committee CEN/TC 155 “Plastics piping systems and ducting systems”, the secretariat of which is held by NEN.

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 October 2019, and conflicting national standards shall be withdrawn at the latest by October 2019.

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.

This document supersedes EN 1519-1:1999.

EN 1519, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Polyethylene (PE)* consists of the following parts:

- *Part 1: Specifications for pipes, fittings and the system*
- *Part 2: Guidance for the assessment of conformity (Technical Specification)*

The main changes in comparison with the previous edition are:

- updating in accordance with the new template;
- updating of normative references;
- thermal stability (OIT) requirement is made valid in general;
- utilization of non-virgin PE materials are described in the new Annex A;
- Annex B has been deleted and the relevant text has been moved to the main standard;
- a new Annex B “Product standards” has been added.

System Standards are based on the results of the work 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).

They are supported by separate standards on test methods to which references are made throughout the System Standard.

The System Standards are consistent with general standards on functional requirements and on recommended practice for installation.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document specifies the requirements for solid-wall polyethylene (PE) pipes with smooth internal and external surfaces extruded from the same compound/formulation throughout the wall, fittings and the system for:

- soil and waste discharge applications (low and high temperature) inside buildings (application area code “B”);
- soil and waste discharge applications (low and high temperature) for both inside buildings and buried in the ground within the building structure (application area code “BD”).

NOTE 1 The intended use is reflected in the marking of products by “B” or “BD”.

NOTE 2 For use buried in the ground within the building structure are intended only those components marked with “BD”, with a nominal ring stiffness of at least SN4 for dimensions equal to or greater than 75 mm.

This document is also applicable to PE pipes and fittings and the system intended for the following purposes:

- ventilating part of the pipework in association with discharge applications;
- rainwater pipework within the building structure.

It also specifies the test parameters for the test methods referred to in this standard.

This document covers a range of nominal sizes, a range of pipes and fittings series and gives recommendations concerning colours.

NOTE 3 It is the responsibility of the purchaser or specifier to make the appropriate selections from these aspects, taking into account their particular requirements and any relevant national regulations and installation practices or codes, e.g. CEN/TR 13801 [1].

NOTE 4 Pipes, fittings and other components conforming to any of the plastics product standards listed in Annex B can be used with pipes and fittings conforming to this European Standard, if applicable.

It applies to pipes and fittings, marked with “B”, which are intended to be used inside buildings and outside buildings fixed onto the wall.

It applies to pipes and fittings, marked with “BD”, which are intended to be used for both inside buildings and buried in the ground within the building structure.

This standard is applicable to PE pipes and fittings of the following types:

- plain-ended;
- with integral elastomeric ring seal socket;
- for butt fusion joints;
- for electrofusion joints;
- for mechanical joints

where the fittings can be manufactured by injection-moulding or can be fabricated from pipes and/or mouldings.

NOTE 5 EN 476[2] specifies the general requirements for components used in discharge pipes, drains and sewers for gravity systems. Pipes and fittings conforming to this standard fully meet these requirements.

NOTE 6 For information about the chemical resistance of PE, guidance is given in ISO/TR 10358[3] and for rubber materials in ISO/TR 7620[4].

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