

Irish Standard I.S. EN 12200-1:2016

Plastics rainwater piping systems for above ground external use - Unplasticized poly(vinyl chloride) (PVC-U) - Part 1: Specifications for pipes, fittings and the system

© CEN 2016 No copying without NSAI permission except as permitted by copyright law.

I.S. EN 12200-1:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R.~xxx: Standard~Recommendation-recommendation~based~on~the~consensus~of~an~expert~panel~and~subject~to~public~consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

Published:

EN 12200-1:2016

2016-04-06

This document was published under the authority of the NSAI

ICS number:

and comes into effect on:

23.040.20

2016-04-24

NOTE: If blank see CEN/CENELEC cover page

NSAI 1 Swift Square,

Northwood, Santry

T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie Sales: T +353 1 857 6730 F +353 1 857 6729

Dublin 9 W NSAI.ie

W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

National Foreword

I.S. EN 12200-1:2016 is the adopted Irish version of the European Document EN 12200-1:2016, Plastics rainwater piping systems for above ground external use - Unplasticized poly(vinyl chloride) (PVC-U) - Part 1: Specifications for pipes, fittings and the system

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This is a free page sample. Access the full version online.

This page is intentionally left blank

EUROPEAN STANDARD

EN 12200-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2016

ICS 23.040.20

Supersedes EN 12200-1:2000

English Version

Plastics rainwater piping systems for above ground external use - Unplasticized poly(vinyl chloride) (PVC-U) -Part 1: Specifications for pipes, fittings and the system

Systèmes de canalisations de descentes d'eaux pluviales en plastique à usage externe en aérien -Poly(chlorure de vinyle) non plastifié (PVC-U) - Partie 1: Spécifications pour tubes, raccords et le système

Kunststoff-Rohrleitungssysteme für außenliegende Regenfallleitungen - Weichmacherfreies Polyvinylchlorid (PVC-U) - Teil 1: Anforderungen an Rohre, Formstücke und das Rohrleitungssystem

This European Standard was approved by CEN on 9 January 2016.

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.

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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Cont	Contents			
European foreword4				
1	Scope	6		
2	Normative references	6		
3	Terms, definitions, symbols and abbreviations	7		
3.1	Terms and definitions	7		
3.2	Definitions of multilayer pipes			
3.3	Material terms and definitions			
3.4	Definitions for brackets			
3.5	Symbols			
3.6	Abbreviations			
4	Material			
4.1	PVC-U material			
4.2	Other materials			
4.3	Utilization of non-virgin material			
4.4 4.5	Sealing ring retaining means Metallic brackets			
5	General characteristics - appearance			
6	Geometrical characteristics			
6.1	General			
6.2	Dimensions of pipes			
6.2.1	Diameters of circular pipes			
6.2.2	Outside dimensions and tolerances of non-circular pipes			
6.2.3 6.2.4	Effective length of pipesWall thicknesses of pipes and their sockets			
6.2.5	Dimensions of sockets			
6.3	Dimensions of fittings			
6.3.1	Nominal size(s)			
6.3.2	Wall thicknesses of fittings			
6.3.3	Angles			
6.3.4	Design lengths (Z_d)			
6.4	Diameters and lengths of sockets and spigots	15		
6.4.1	Ring seal sockets and spigots			
6.4.2	Solvent cement and unsealed sockets and spigots			
6.4.3	Non-circular sockets and spigots	19		
6.4.4	Spigot sleeves			
6.5	Types of fittings			
6.6	Brackets	22		
7	Mechanical characteristics			
7.1	Pipes			
7.2	Mechanical characteristics of anchor brackets			
8	Physical characteristics			
8.1	Physical characteristics of pipes			
82	Physical characteristics of fittings	26		

9	Fitness for purpose of joint and system	. 26
10	Sealing rings	. 27
11	Adhesives	. 27
12	Marking	. 27
12.1	General	. 27
12.2	Minimum required marking of pipes	. 28
12.3	Minimum required marking of fittings	
12.4	Minimum required marking of brackets	. 29
Annex	A (informative) Utilization of non-virgin material	. 30
A.1	Own reprocessed material	. 30
A.2	External reprocessed and recycled material with agreed specification	. 30
A.3	External reprocessed and recycled material not covered by an agreed specification	ı 31
Annex	B (informative) Survey of possible use of reprocessed and recycled material	. 33
Biblio	graphy	. 34

European foreword

This document (EN 12200-1:2016) has been prepared by Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems", the secretariat of which is held by NEN.

This document supersedes EN 12200-1:2000.

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 2016, and conflicting national standards shall be withdrawn at the latest by October 2016.

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

This European Standard has been prepared in liaison with CEN/TC 128 "Roof covering products for discontinuous laying and products for wall cladding" taking into account EN 607 [1] and EN 1462 and CEN/TC 165 "Waste water engineering" taking into account the design guidance in EN 12056-3 [4].

This standard is a Part of a System Standard for plastics piping systems of a particular material for a specified application. There are a number of such System Standards.

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.

EN 12200 consists of the following Parts, under the general title "Plastics rainwater piping systems for above ground external use — Unplasticized poly(vinyl chloride) (PVC-U)":

- Part 1: Requirements for pipes fittings and the system (the present standard);
- Part 2: Guide for the assessment of conformity [3].

For Rainwater discharge systems used internally within buildings the following standards apply:

EN 1329, Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Unplasticized poly(vinyl chloride) (PVC-U)

EN 1451, Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Polypropylene (PP)

EN 1453, Plastics piping systems with structured-wall pipes for soil and waste discharge (low and high temperature) inside buildings – Unplasticized poly(vinyl chloride) (PVC-U)

EN 1455, Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Acrylonitrile-butadiene-styrene (ABS)

EN 1519, Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Polyethylene (PE)

EN 1565, Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Styrene copolymer blends (SAN+PVC)

EN 1566, Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Chlorinated poly(vinyl chloride) (PVC-C)

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the requirements for pipes, fittings, brackets and the system of unplasticized poly(vinyl chloride) (PVC-U) intended for use as above-ground external rainwater piping systems.

It also specifies:

- a) The requirements for metallic brackets.
- b) Both solid wall pipes and fittings, (i.e. product manufactured from a single layer), as well as solid wall multi-layer pipes.
- c) The test parameters for the test methods referred to in this standard.

Pipes can be used in conjunction with fittings and brackets of acrylic materials provided these polymers meet the performance requirements of this standard.

The products are usually used in conjunction with gutters conforming to EN 607 [1]. They are not intended for use with products conforming to EN 612 [2].

This standard is applicable to PVC-U rainwater systems of circular, square, rectangular or any other shape with sealed (rubber ring or solvent cement) or unsealed joints.

This standard covers a range of pipes and fittings sizes.

NOTE 1 It is the responsibility of the purchaser or specifier to make the appropriate selections from the size range to take into account their particular requirements and any relevant national regulations and installation practices or codes.

NOTE 2 The term "rainwater" in this standard is used also to encompass "surface water" (as defined in EN 752 [6]) run-off from buildings.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 513:1999, Unplasticized polyvinylchloride (PVC-U) profiles for the fabrication of windows and doors - Determination of the resistance to artificial weathering

EN 681-1, Elastomeric seals - Materials requirements for pipe joint seals used in water and drainage applications - Part 1: Vulcanized rubber

EN 681-2, Elastomeric Seals - Materials requirements for pipe joint seals used in water and drainage applications - Part 2: Thermoplastic elastomers

EN 1462, Brackets for eaves gutters - Requirements and testing

EN 12095, Plastics piping systems - Brackets for rainwater piping systems - Test method for bracket strength

CEN/TS 14541:2013, Plastics pipes and fittings - Characteristics for utilisation of non-virgin PVC-U, PP and PE materials

EN 14680, Adhesives for non-pressure thermoplastics piping systems - Specifications



This is a free preview	 Purchase the entire 	e publication at the link below:
------------------------	---	----------------------------------

Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation