Zaves gutters and fittings mau. requirements and testing



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 607:2023 sisaldab Euroopa standardi EN 607:2023 ingliskeelset teksti.

This Estonian standard EVS-EN 607:2023 consists of the English text of the European standard EN 607:2023.

Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.

This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.

Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 10.05.2023.

Date of Availability of the European standard is 10.05.2023.

Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.

The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile <u>standardiosakond@evs.ee</u>.

ICS 91.060.20

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardimis-ja Akrediteerimiskeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardimis-ja Akrediteerimiskeskusega: Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation and Accreditation No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation and Accreditation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation and Accreditation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 607

May 2023

ICS 91.060.20

Supersedes EN 607:2004

English Version

Eaves gutters and fittings made of PVC-U - Definitions, requirements and testing

Gouttières pendantes et leurs raccords en PVC-U -Définitions, exigences et méthodes d'essai Hängedachrinnen und Zubehörteile aus PVC U -Begriffe, Anforderungen und Prüfung

This European Standard was approved by CEN on 17 March 2023.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



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

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

Contents Page European foreword.......3 1 2 Normative references......4 Terms and definitions ______6 3 Symbols.......9 4 Material.......9 5.1 PVC material......9 5.2 Other materials......9 5.3 Utilization of reworked material and recyclate......9 Appearance.......10 6 Geometrical characteristics10 7.1 Width of gutters......10 Effective length of gutters10 7.2 7.3 Physical and mechanical characteristics of gutters.....11 8 Physical characteristics of fittings11 9 10 11 Adhesives12 12 Fitness for purpose of gutter systems......13 Marking......14 13 13.1 General......14 13.2 Minimum required marking of gutters......14 Minimum required marking of fittings15 13.3 Annex A (normative) Utilization of non-virgin material......16 Annex B (normative) Impact test18 Annex C (normative) Heat reversion test for fittings......19 Annex D (normative) Watertightness test20 Annex E (informative) Cross section areas21 Bibliography......22

European foreword

This document (EN 607:2023) has been prepared by Technical Committee CEN/TC 128 "Roof covering products for discontinuous laying and products for wall cladding", SC10 "Gutters", 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 November 2023, and conflicting national standards shall be withdrawn at the latest by November 2023.

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 607:2004.

The main changes include:

- Clarification of the products covered;
- Conditions for the use of non-virgin materials (see Annex A);
- Update of the Normative references.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

1 Scope

This document specifies the requirements for eaves gutters made of unplasticized poly(vinyl chloride) (PVC-U), fittings and the system intended to be used for rainwater roof drainage.

It applies to:

- solid wall monolayer gutters;
- solid wall multilayer gutters;
- solid wall fittings.

This document is not applicable to PVC gutters with a foamed layer.

The test parameters for the test methods are specified in the document.

Gutters covered by this document can be used in conjunction with fittings of acrylic materials provided these products meet the applicable requirements of this document.

NOTE 1 Products complying with this document are suitable to be used in conjunction with rainwater downpipes conforming to EN 12200-1 [1] and fixed with brackets complying with EN 1462 [2].

This document is applicable to PVC-U gutter systems of any shape with rubber seal or adhesive joints.

NOTE 2 It is the responsibility of the purchaser or specifier to make the appropriate selections from the size range and the design to take into account their particular requirements and any relevant national regulations and installation practices or codes.

NOTE 3 The term "rainwater" in this document is used also to encompass "surface water" (as defined in EN 752 [3]) run-off from buildings.

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 513, Plastics — Poly(vinyl chloride) (PVC) based profiles — 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 681-3, Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 3: Cellular materials of vulcanized rubber

EN 681-4, Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 4: Cast polyurethane sealing elements

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

EN 14814, Adhesives for thermoplastic piping systems for fluids under pressure — Specifications

EN ISO 1158, Plastics — Vinyl chloride homopolymers and copolymers — Determination of chlorine content (ISO 1158)

EN 20105-A02, Textiles — Tests for colour fastness — Part A02: Grey scale for assessing change in colour (ISO 105-A02)

EN ISO 527-2, Plastics - Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics (ISO 527-2)

EN ISO 580, Plastics piping and ducting systems — Injection-moulded thermoplastics fittings — Methods for visually assessing the effects of heating (ISO 580)

EN ISO 1183-3, Plastics — Methods for determining the density of non-cellular plastics — Part 3: Gas pyknometer method (ISO 1183-3)

EN ISO 2505, Thermoplastics pipes — Longitudinal reversion — Test method and parameters (ISO 2505)

EN ISO 2507-1, Thermoplastics pipes and fittings — Vicat softening temperature — Part 1: General test method (ISO 2507-1)

EN ISO 2507-2, Thermoplastics pipes and fittings — Vicat softening temperature — Part 2: Test conditions for unplasticized poly(vinyl chloride) (PVC-U) or chlorinated poly(vinyl chloride) (PVC-C) pipes and fittings and for high impact resistance poly(vinyl chloride) (PVC-Hi) pipes (ISO 2507-2)

EN ISO 3126, Plastics piping systems — Plastics components — Determination of dimensions (ISO 3126)

EN ISO 3451-5, Plastics — Determination of ash — Part 5: Poly(vinyl chloride)(ISO 3451-5)

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

EN ISO 4892-3, Plastics — Methods of exposure to laboratory light sources — Part 3: Fluorescent UV lamps (ISO 4892-3)

EN ISO 8256, Plastics — Determination of tensile-impact strength (ISO 8256)

EN ISO 11664-4, Colorimetry — Part 4: CIE 1976 L*a*b* Colour space (ISO 11664-4)

ISO 6259-2, Thermoplastics pipes — Determination of tensile properties — Part 2: Pipes made of unplasticized poly(vinyl chloride) (PVC-U), oriented unplasticized poly(vinyl chloride) (PVC-O), chlorinated poly(vinyl chloride) (PVC-C) and high-impact poly(vinyl chloride) (PVC-HI)

5