Extruded cellular unplasticized white PVC (PVC-UE) profiles — Specification
This is a preview of "BS 7619:2021". Click here to purchase the full version from the ANSI store.
Contents

Foreword ii

Introduction 1

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Materials 2

4.1 General 2

4.2 Post-industrial waste (PIW) 2

4.3 Post-consumer waste (PCW) 3

5 Profile properties 3

5.1 Thickness and width 3

5.2 Length 3

5.3 Surface finish 3

5.4 Flatness 3

Table 1 — Dimensional tolerances for the measurement of extruded profiles 4

5.5 Bowing 4

Table 2 — Requirements for bow measurement of varying profile lengths 4

6 Testing 4

6.1 General 4

6.2 Test samples for dimensions and dimensional tolerances 4

6.3 Test sample for surface finish 4

6.4 Test samples for colour fastness 5

6.5 Test sample for flatness 5

6.6 Test samples for bowing 5

6.7 Test samples for resistance to impact 5

6.8 Test samples for resistance to impact with the effects of ultraviolet light 5

7 Performance 5

7.1 Colour fastness and weathering resistance 5

7.2 Fire performance 5

7.3 Resistance to impact 5

7.4 The effects of ultraviolet light on resistance to impact after ageing 5

8 Marking 6

Annex A (normative) Method of test for colour fastness 7

Annex B (normative) Method of test for flatness 8

Figure B.1 — Product flatness measuring device 9

Annex C (normative) Method of test for bowing in the length of the profile 10

Figure C.1 — Schematic representation of bowing 11

Annex D (normative) Method of test for resistance to impact 11

Annex E (normative) Method of test for the resistance to impact with the effects of ultraviolet light 12

Summary of pages

This document comprises a front cover, an inside front cover, pages I to II, pages 1 to 13, an inside back cover and a back cover.
Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 December 2021. It was prepared by Technical Committee PRI/82, Thermoplastic materials. A list of organizations represented on this committee can be obtained on request to the committee manager.

Supersession

This British Standard supersedes BS 7619:2010, incorporating Corrigendum No.1, which is withdrawn.

Information about this document

This new edition of BS 7619 incorporates technical changes only in 5.1 and Table 1. It does not represent a full review or revision of the standard, which will be undertaken in due course.

This publication can be withdrawn, revised, partially superseded or superseded. Information regarding the status of this publication can be found in the Standards Catalogue on the BSI website at bsigroup.com/standards, or by contacting the Customer Services team.

Where websites and webpages have been cited, they are provided for ease of reference and are correct at the time of publication. The location of a webpage or website, or its contents, cannot be guaranteed.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. "organization" rather than "organisation").

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient’s own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.
Introduction
Extruded cellular unplasticized white PVC (PVC-UE) profiles are primarily used in a variety of applications as an alternative to traditional building materials. These applications can include claddings, fascias, and decorative finishing trims.

Building products made from cellular PVC-UE are characterized by a high stiffness-to-weight ratio. This is due to the formation of a denser outer skin encapsulating a rigid closed cellular core during extrusion. Profiles can be cut post-extrusion to accommodate customer requirements. The relationship between the thickness and density of the outer skin and the density of the closed cellular core can be varied to obtain products with differing performance characteristics. The expansion of the core during extrusion derives from the use of either physical or chemical expanding agents.

1 Scope
This British Standard specifies the requirements of mono and co-extruded cellular white PVC-UE profiles for non-structural building applications, where they are subjected to ambient temperatures up to 50 °C.

2 Normative references
The following documents are referred to in the text in such a way that some or all of their content constitutes provisions 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.

BS 476-7, Fire tests on building materials and structures – Method of test to determine the classification of the surface spread of flame of products
BS 3900-D10, (ISO 7724-3), Methods of test for paints – Determination of colour and colour difference: Calculation
BS EN ISO 4892-3:2006, Plastics – Methods of exposure to laboratory light sources – Part 3: Fluorescent UV lamps

3 Terms and definitions
For the purposes of this British Standard, the following terms and definitions apply.

3.1 extruded profile
product, created from raw plastic material that has been subjected to high temperatures and formed into a continuous profile

3.2 post-consumer waste (PCW)

3.2.1 PCWa
material, free from contamination and degradation, made from used PVC-UE profiles