

Specification for

Surface covered PVC-U extruded hollow profiles with heat welded corner joints for plastics windows

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Technical Committee B/538 Doors, windows, shutters, hardware and curtain walling, to Subcommittee B/538/1 Windows, upon which the following bodies were represented:

- Aluminium Window Association
- Association of Builders' Hardware Manufacturers
- British Plastics Federation
- British Wood Preserving and Damp-proofing Association
- British Woodworking Federation
- Construction Fixings Association
- Consumer Policy Committee of BSI
- Department of the Environment (Building Research Establishment)
- Flat Glass Manufacturers' Association
- Glass and Glazing Federation
- Guild of Architectural Ironmongers
- Health and Safety Executive
- LHC Building Components and Services
- Local Authority Organizations
- National House-Building Council
- PSA Projects Ltd.
- Royal Institute of British Architects
- Steel Window Association
- Timber Research and Development Association
- Coopted members

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Foreword

This British Standard has been prepared under the direction of Technical Committee B/538 Doors, windows, shutters, hardware and curtain walling.

BS 7413 and BS 7414 specify the white PVC-U extruded hollow profiles used in the construction of plastics windows conforming to BS 7412 and should be read in conjunction with this standard.

BS 7412 specifies windows manufactured from white profiles only. It is envisaged however that, following research now in progress, a future amendment of BS 7412 will include the covered profiles specified in this standard.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This British Standard specifies PVC-U extruded hollow profiles where the permanently exposed surface is completely covered by means of coloured foil prior to fabrication.

The specification excludes both self-coloured profiles without a covering layer as described, and profiles incorporating a co-extruded weathering layer.

Methods of test are given in Annex A to Annex D respectively and advice on the use of protective tapes in Annex E.

NOTE Requirements for white PVC-U extruded hollow profiles for plastics windows manufactured from materials types A and B are specified in BS 7413 and BS 7414 respectively.

2 Normative references

This British Standard incorporates, by reference, provisions from specific editions of other publications. These normative references are cited at the appropriate points in the text and the publications are listed on the inside back cover. Subsequent amendments to, or revisions of, any of these publications apply to this British Standard only when incorporated in it by updating or revision.

3 Definitions

For the purposes of this British Standard the definitions given in BS 6100-1.3.5:1988 and BS 6100-1.5.1:1984, BS 7412:1991, BS 7413:1991 and BS 7414:1991 apply together with the following.

3.1 laminated foil

a plastics layer bonded with an adhesive to cover a surface

3.2 transfer foil

a coloured protective surface layer carried on a release medium and bonded to the surface by the application of heat and pressure

3.3 reworked material

material of a known formulation prepared from rejected or unused base material that is to be reprocessed in a manufacturer's plant after previous extrusion by the same manufacturer

3.4 type A or type B materials

materials conforming to the relevant requirements of Table 1

Table 1 — Physical properties of PVC-U material

Test	Test method	Minimum value materials type A	Minimum value materials type B
Softening point	BS 2782-1:Method 120B:1990	75 °C	80 °C
Apparent modulus	BS 2782-3:Method 335A:1993 (Rate of strain = 5 mm/min)	2 250 MPa	3 000 MPa
Impact strength	BS 2782-3:Method 359:1993 (see Annex A)	12 kJ/m ²	8 kJ/m ²
Tensile impact strength at 23 °C	ISO 8256:1990 Method A specimen type 5	600 kJ/m ²	600 kJ/m ²
at 0 °C	(see Annex B)	400 kJ/m ²	400 kJ/m ²
Colour fastness	Annex C	For white profiles the maximum colour change shall be that rated 3-4 on the grey scale specified in method A03 of BS 1006:1990 For dark profiles the maximum colour change shall be that rated 3 on the grey scale specified in method A02 of BS 1006:1990	
NOTE Materials which conform to BS 7413 (type A) or BS 7414 (type B) are suitable for the base profile.			