

DIN EN 12608-2:2024-02 (E)

Unplasticized poly(vinyl chloride) (PVC-U) profiles for the fabrication of windows and doors - Classification, requirements and test methods - Part 2: PVC-U profiles covered with foils bonded with adhesives

Contents

Page

European foreword	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions.....	6
4 Classifications	6
4.1 General.....	6
4.2 Classification of main base profiles according to the wall thickness of the external walls .	7
4.3 Classification of main base profiles according to the resistance to impact by falling mass	7
4.4 Classification of base profile materials according to the resistance to artificial weathering	7
4.5 Classification of foils according to the resistance to artificial weathering.....	7
5 Requirements for base profiles	7
5.1 Base profiles in conformance with EN 12608-1.....	7
5.2 Other base profiles	7
5.2.1 Materials	7
5.2.2 Appearance	9
5.2.3 Dimensions and tolerances of main base profiles	9
5.2.4 Linear weight of the main base profiles	9
5.2.5 Heat reversion	10
5.2.6 Resistance to impact by falling mass of the main base profiles.....	10
6 Requirements for foils	10
6.1 General.....	10
6.2 Appearance	10
6.3 Resistance to artificial weathering.....	10
6.4 Solar direct reflectance.....	11
6.5 Resistance to cross cut (only for lacquered foils)	11
7 Requirements for adhesive systems	11
7.1 General.....	11
7.2 Adhesion of the foil.....	11
7.3 Adhesion of the foil after hydrolytic/thermolytic storage	11
8 Requirements for laminated profiles.....	11
8.1 General.....	11
8.2 Appearance	11
8.3 Deviation from straightness of the laminated main profiles.....	12
8.4 Behaviour after heat storage	12
8.4.1 General.....	12
8.4.2 Assessment of material properties and extrusion process	12
8.4.3 Assessment of the lamination process	12
8.5 Peel strength.....	12
8.6 Strength of welded corners and T-joints of laminated main profiles.....	13

9	Test methods	13
9.1	Visual inspection.....	13
9.2	Determination of peel strength after hydrolytic/thermolytic storage	13
9.2.1	Principle.....	13
9.2.2	Apparatus and materials	13
9.2.3	Preparation of the test specimens.....	14
9.2.4	Storage and reconditioning	14
9.2.5	Determination of the peel strength.....	14
9.2.6	Test report	14
10	Traceability.....	15
Annex A	(normative) Requirements for materials of other base profiles than described in EN 12608-1.....	16
A.1	General	16
A.2	Preparation of test specimens	18
A.2.1	General	18
A.2.2	Preparation of pressed plates.....	18
A.2.3	Material properties.....	18
Annex B	(informative) Guidance for the selection of a suitable class for the foil according to 4.5 based on the climatic condition at the intended installation site.....	19
B.1	General	19
B.2	Natural irradiation.....	19
B.3	Köppen-Geiger climate classification.....	22
Annex C	(normative) Determination of the reflection behaviour of foils by spectral analysis.....	24
C.1	Principles.....	24
C.2	Apparatus	24
C.2.1	UV/VIS/NIR-Spectrophotometer, used to establish reflection-spectra, with the following specifications:	24
C.3	Preparation of test specimens	24
C.4	Determination of the solar direct reflectance.....	25
C.5	Test report	25
	Bibliography	26