

DIN EN 12608-1:2016-08 (E)

Unplasticized poly(vinyl chloride) (PVC-U) profiles for the fabrication of windows and doors - Classification, requirements and test methods - Part 1: Non-coated PVC-U profiles with light coloured surfaces

Contents

	Page
European foreword	4
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
3.1 General	7
3.2 Profile definitions	7
3.3 Geometrical definitions	8
3.4 Material definitions	9
4 Classifications	10
4.1 General	10
4.2 Classification of climatic zones	10
4.3 Classification of main profiles according to the resistance to impact by falling mass	11
4.4 Classification of main profiles according to the wall thickness of the external walls	11
5 Requirements	13
5.1 Material	13
5.1.1 UV resistant virgin material	13
5.1.2 Non-UV resistant virgin material	13
5.1.3 Reprocessed, recycled materials and non-UV resistant virgin materials	13
5.2 Appearance	14
5.3 Dimensions and tolerances	14
5.3.1 General	14
5.3.2 Nominal shape	14
5.3.3 Wall thickness of main profiles	14
5.3.4 Tolerances on other dimensions	15
5.3.5 Deviation from straightness of the main profiles	15
5.4 Linear weight of the main profiles	15
5.5 Heat reversion	15
5.5.1 Main profile	15
5.5.2 Auxiliary profiles	15
5.6 Resistance to impact of main profiles by falling mass	16
5.7 Behaviour after heating at 150 °C	16
5.8 Charpy impact resistance of main profile	16
5.9 Resistance to weathering	16
5.9.1 Exposure procedure	16
5.9.2 Impact strength after artificial weathering of main profiles	17
5.9.3 Colour fastness	17
5.10 Strength of welded corners and T-joints of main profiles	17
5.10.1 Test method	17
5.10.2 Tensile bending test	17
5.10.3 Compression bending test	17
6 Test methods	17
6.1 Determination of the appearance	17
6.2 Determination of dimensions	18

6.2.1	Measuring devices	18
6.2.2	Test specimen	18
6.2.3	Conditioning	18
6.2.4	Procedure	18
6.3	Determination of the linear weight of the profile	18
6.3.1	Apparatus	18
6.3.2	Test specimen	18
6.3.3	Conditioning	18
6.3.4	Procedure	18
6.4	Determination of the thickness of a coextruded layer	19
6.5	Determination of colorimetric co-ordinates	19
6.6	Permissible tolerances on standard colours	19
7	Marking	19
7.1	Main profiles	19
7.2	Auxiliary profiles	20
Annex A (normative) Material characteristics, preparation of samples and requirements		21
A.1	General	21
A.2	Test specimens	21
A.3	Preparation of pressed plates	21
A.4	Material characteristics	21
A.4.1	Vicat softening temperature	21
A.4.2	Flexural modulus of elasticity	22
A.4.3	Tensile impact strength	22
A.5	Test report	22
Annex B (normative) Calculation method for the determination of the radiant exposure and exposure time to be used for artificial weathering		23
B.1	General	23
B.2	Calculation	23