DIN EN ISO 12017:2021-10 (E)

Plastics - Poly(methyl methacrylate) double- and triple-skin sheets - Test methods (ISO 12017:2021)

Contents

Page

European foreword ... **4**

Foreword ... **5**

1 Scope ... **6**

2 Normative references ... **6**

3 Terms and definitions ... **6**

4 Composition of materials ... **8**

5 Characteristics ... **8**
5.1 Main characteristics of DSS and TSS ... 8
5.2 Profile ... 9
5.3 Other characteristics of DSS and TSS ... 10

6 Test methods ... **11**
6.1 General ... 11
6.1.1 Test conditions ... 11
6.1.2 Sampling ... 11
6.1.3 Preparation of test specimens ... 11
6.2 Thickness measurements ... 11
6.2.1 Total thickness ... 11
6.2.2 Minimum skin thickness ... 11
6.2.3 Minimum rib thickness ... 11
6.2.4 Test report ... 11
6.3 Width and length measurements ... 12
6.4 Rib geometry ... 12
6.5 Mass per unit area ... 12
6.6 Curvature of sheet surface ... 12
6.7 Curvature of edge in extrusion direction ... 13
6.8 Optical properties ... 14
6.8.1 Luminous transmittance ... 14
6.8.2 Colour ... 14
6.8.3 Appearance ... 14
6.8.4 Test report ... 15
6.9 Thermal resistance ... 15
6.10 Three-point bending test ... 15
6.10.1 General ... 15
6.10.2 Procedure ... 15
6.10.3 Evaluation criterion for the bending test ... 16
6.10.4 Test report ... 16
6.11 Sound insulation ... 17
6.12 Fire resistance ... 17
6.13 Weathering test ... 17
6.14 Chemical resistance to (compatibility with) materials in contact with DSS or TSS ... 17
6.14.1 Procedure ... 17
6.14.2 Test report ... 17
6.15 Evaluation of internal stress ... 17

7 Condensate formation **18**

Annex A (normative) **Determination of luminous transmittance of PMMA double- and triple-skin sheets** **19**

Annex B (normative) **Bending test to examine the chemical compatibility of PMMA with other materials** **23**

Bibliography **26**