DIN 53435:2024-10 (E)

Testing of plastics - Bending test and impact test on dynstat test specimens

Contents

Page

Foreword ... 4

1 Scope ... 6

2 Normative references ... 6

3 Terms and definitions ... 7

4 Principle ... 8
4.1 Bending test ... 8
4.2 Impact bending test ... 8

5 Apparatus ... 8
5.1 General ... 8
5.2 Dynstat bending test, DB ... 8
5.2.1 Loading principle ... 8
5.2.2 Generating and measuring loads ... 10
5.2.3 Apparatus design ... 12
5.3 Dynstat impact bending test, DS ... 13
5.3.1 Loading principle ... 13
5.3.2 Generating and measuring loads ... 14
5.4 Devices for measuring geometrical dimensions ... 15

6 Dynstat test specimens ... 16
6.1 Sampling and preparation ... 16
6.1.1 General ... 16
6.1.2 Test specimens with original surfaces ... 16
6.1.3 Test specimens with machined surfaces ... 16
6.2 Shapes and dimensions ... 17
6.2.1 Unnotched test specimens ... 17
6.2.2 Notched test specimens ... 17
6.3 Number of specimens ... 18

7 Conditioning of test specimens ... 18

8 Procedure ... 19
8.1 Test atmosphere ... 19
8.2 Determining geometric dimensions ... 19
8.3 Bending test ... 19
8.4 Impact bending test ... 20

9 Evaluation ... 20
9.1 Bending test ... 20
9.2 Impact bending test ... 21

10 Test report ... 21
10.1 General ... 21
10.2 Bending test ... 22
10.3 Impact bending test ... 23

11 Precision ... 23

Annex A (informative) **Determining strain in test specimens** **24**
Annex B (informative) **Testing at different temperatures** **26**
Annex C (informative) **Precision data** **27**
Annex D (informative) **Comparison of notch types** **29**
Annex E (informative) **Influence of notch depth** **30**
Bibliography **32**