ISO 178:2019 (E)

Plastics — Determination of flexural properties

Contents

Foreword

1 Scope

2 Normative references

3 Terms, definitions and symbols

4 Principle

5 Test machine

- 5.1 General
- 5.2 Test speed
- 5.3 Supports and loading edge
- 5.4 Force- and deflection-measuring systems
- 5.4.1 Introductory remarks
- 5.4.2 Definition of precision and accuracy requirements
- 5.4.3 Deflection measurement
- 5.5 Equipment for measuring the width and thickness of the test specimens

6 Test specimens

- 6.1 Shape and dimensions
- 6.1.1 General
- 6.1.2 Preferred specimen type
- 6.1.3 Other test specimens
- 6.2 Anisotropic materials
- 6.3 Preparation of test specimens
- 6.3.1 From moulding, extrusion and casting compounds
- 6.3.2 From sheets
- 6.4 Specimen inspection
- 6.5 Number of test specimens

7 Atmosphere for conditioning and testing

8 Procedure

9 Calculation and expression of results

- 9.1 Flexural stress
- 9.2 Flexural strain
- 9.3 Flexural modulus
- 9.4 Statistical parameters
- 9.5 Significant figures

10 Precision

11 Test report

Annex A (informative) Precision statement

Annex B (informative) Influence of changes in test speed on the measured values of flexural properties

Annex C (normative) Compliance correction for Type III-tests

- C.1 Sources of compliance
- C.2 Procedure for Type III tests

Annex D (informative) Relation between tensile and flexural modulus: Theoretical expectations and experimental observations

Page count: 25