DIN EN ISO 11357-5:2025-09 (E)

Plastics - Differential scanning calorimetry (DSC) - Part 5: Determination of characteristic reaction-curve temperatures and times, enthalpy of reaction and degree of conversion (ISO 11357-5:2025)

Contents

Page

Foreword ... **iv**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 Principle ... **2**

5 Apparatus and materials ... **2**

6 Test specimens ... **2**

7 Test conditions and specimen conditioning ... **2**

8 Calibration ... **2**

9 Procedure ... **2**
9.1 General ... 2
9.2 Temperature-scanning method ... 2
9.3 Isothermal method ... 3
9.3.1 General ... 3
9.3.2 Constant-temperature method ... 3
9.3.3 Procedure starting at ambient temperature ... 3
9.3.4 Residual enthalpy ... 4

10 Determination of results ... **4**
10.1 Determination of characteristic temperatures and enthalpy of reaction (temperature-scanning method) ... 4
10.2 Determination of characteristic times and enthalpy of reaction (isothermal method) ... 4
10.3 Determination of degree of conversion ... 6
10.3.1 General ... 6
10.3.2 Calculation of α from a temperature scan ... 6
10.3.3 Calculation of α from an isothermal curve ... 8

11 Precision ... **9**

12 Test report ... **9**

Bibliography ... **10**