

ISO 11357-8:2021-02 (E)

Plastics - Differential scanning calorimetry (DSC) - Part 8: Determination of thermal conductivity

Contents		Page
Foreword		iv
Introduction		v
1 Scope		1
2 Normative references		1
3 Terms and definitions		1
4 Principle		1
5 Apparatus and substances		2
5.1 DSC instrument.....		2
5.2 Crucibles.....		2
5.3 Melting substance.....		2
5.4 Protective lacquer.....		3
5.5 Length measuring device.....		3
6 Specimens		3
6.1 Geometry.....		3
6.2 Number and sampling.....		3
7 Conditioning		3
8 Calibration		4
9 Measurement procedure		4
9.1 Preparation of crucibles.....		4
9.2 Use of thermal contact substances.....		4
9.3 Measurement of melting substance.....		4
9.3.1 Placing of crucibles in sample holder.....		4
9.3.2 Distribution of melting substance on crucible ground.....		4
9.3.3 Measurement of the slope of the melting curve without test specimen.....		5
9.3.4 Insertion of test specimen.....		5
9.3.5 Measurement of the slope of the melting curve with test specimen.....		5
9.4 Evaluation of the slope of the peaks of the melting substance.....		5
10 Calculation of thermal conductivity		7
11 Service life of crucibles upon using gallium as melting substance		7
12 Precision and bias		7
13 Test report		8
Annex A (informative) Interlaboratory determination of thermal conductivity measured by means of DSC		9
Bibliography		15