

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