

ISO 11357-6:2025-06 (E)

Plastics - Differential scanning calorimetry (DSC) - Part 6: Determination of oxidation induction time (isothermal OIT) and oxidation induction temperature (dynamic OIT)

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Principle	2
4.1	General	2
4.2	Oxidation induction time (isothermal OIT)	2
4.3	Oxidation induction temperature (dynamic OIT)	2
5	Apparatus and materials	2
5.1	General	2
5.2	DSC instrument	3
5.3	Crucibles	3
5.4	Flowmeter	3
5.5	Oxygen	3
5.6	Air	3
5.7	Nitrogen	3
5.8	Gas-selector switch and regulators	3
6	Test specimens	4
6.1	General	4
6.2	Specimens from compression-moulded plates	4
6.3	Specimens from injection-moulded plates or melt flow extrudates	4
6.4	Specimens from finished parts	4
7	Test conditions and specimen conditioning	5
8	Calibration	5
8.1	Oxidation induction time (isothermal OIT)	5
8.1.1	General	5
8.1.2	Dynamic temperature calibration	5
8.1.3	Isothermal stepwise temperature calibration	5
8.2	Oxidation induction temperature (dynamic OIT)	5
9	Procedure	6
9.1	Setting up the instrument	6
9.2	Loading the test specimen into the crucible	6
9.3	Insertion of crucibles	6
9.4	Nitrogen, air and oxygen flow	6
9.5	Sensitivity adjustment	6
9.6	Performance of measurement	6
9.6.1	Oxidation induction time (isothermal OIT)	6
9.6.2	Oxidation induction temperature (dynamic OIT)	7
9.7	Cleaning	8
10	Expression of results	8
11	Precision and bias	10
12	Test report	10
Bibliography		12