

DIN EN ISO 11357-6:2025-09 (E)

Plastics - Differential scanning calorimetry (DSC) - Part 6: Determination of oxidation induction time (isothermal OIT) and oxidation induction temperature (dynamic OIT) (ISO 11357-6:2025)

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