

# DIN EN ISO 23977-1:2022-01 (E)

Plastics - Determination of the aerobic biodegradation of plastic materials exposed to seawater - Part 1: Method by analysis of evolved carbon dioxide (ISO 23977-1:2020)

---

<b>Contents</b>		<b>Page</b>
European foreword .....		3
Foreword .....		4
Introduction .....		5
1	Scope .....	7
2	Normative references .....	7
3	Terms and definitions .....	7
4	Principle .....	9
5	Test environment .....	9
6	Reagents .....	9
7	Apparatus .....	10
8	Procedure .....	11
8.1	Test material .....	11
8.2	Reference materials .....	11
8.3	Test set up .....	12
8.4	Pre-conditioning phase .....	12
8.5	Start of the test .....	12
8.6	Carbon dioxide measurement .....	13
8.7	End of the test .....	13
9	Calculation and expression of results .....	14
9.1	Calculation .....	14
9.1.1	Amount of CO produced <sup>2</sup> .....	14
9.1.2	Percentage of biodegradation .....	16
9.2	Visual inspection .....	17
9.3	Expression and interpretation of results .....	17
10	Validity of results .....	17
11	Test report .....	18
Annex A (informative) Example of a respirometric system .....		19
Bibliography .....		21