

ISO 16636:2025-04 (E)

Plastics - Disintegration field test of plastics under water environmental conditions

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Principle	2
5	Test procedure	3
5.1	Test material	3
5.2	Reference material	3
5.3	Preparation of test and reference materials	3
5.4	Number of replicates	4
5.5	Immersion in water	5
5.6	Water conditions	6
5.6.1	General	6
5.6.2	Determination of number of microorganisms in water	6
5.6.3	Analysis of microbial community composition in seawater (optional)	6
5.6.4	Properties of water	6
5.7	Termination of the field test and sampling interval	6
6	Analysis and monitoring of the field test	7
6.1	Photographic documentation	7
6.2	Determination of disintegration	7
6.2.1	General	7
6.2.2	Calculating degree of disintegration of test material based on weight determination	7
6.2.3	Calculating degree of disintegration rate (film thickness decrease rate) of film sample	8
6.2.4	Calculating degree of disintegration rate (weight loss rate) of the sample other than film	8
6.3	Analysing characteristics of plastic materials (optional)	9
6.4	Monitoring environmental parameters (recommended)	9
7	Test report	10
Annex A (informative) Example of results for disintegrated plastic materials in real sea		11
Annex B (informative) Microbial counts in sea water		15
Bibliography		16