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European foreword

This document (EN 17428:2023) has been prepared by Technical Committee CEN/TC 261 “Packaging”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2024, and conflicting national standards shall be withdrawn at the latest by June 2024.

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Introduction

The test method described in this document determines the degree of disintegration of test items when exposed to a simulated well-managed home composting environment.

The disintegration of test items is determined by means of a weight evaluation method.

Determining the degree of disintegration of test items under simulated home composting conditions is an important step within a test scheme to evaluate test items such as carrier bags suitable for treatment in well-managed home composting installations.

The disintegration conditions given in this document are based on available national standards and existing certification schemes. Further research will be done to investigate how disintegration testing according to this document could better reflect the variety of actual home composting conditions within Europe.

1 Scope

This document specifies a laboratory scale test method for determining the degree of disintegration of test items when exposed to well-managed home composting conditions by the weight evaluation method (WE method) using sieving and evaluation by weighing.

The test method is not applicable for the determination of the biodegradability of test items under home composting conditions. Additional testing is necessary for making claims concerning the suitability for home composting. This document is not appropriate for claims relating to the suitability for home composting.

This test method is carried out at laboratory scale under controlled conditions. Therefore, it does not reproduce any real home composting conditions, but it is devised to gain information on the potential of the test item to disintegrate sufficiently. A test item that passes this test is assumed to be capable of undergoing full disintegration in a 12 months home composting cycle carried out under well managed conditions. For features of well-managed home composting see EN 17427:2022, Annex E.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 16087-1, *Soil improvers and growing media — Determination of the aerobic biological activity — Part 1: Oxygen uptake rate (OUR)*

EN 16087-2, *Soil improvers and growing media — Determination of the aerobic biological activity — Part 2: Self heating test for compost*

EN ISO 9073-1, *Nonwovens — Test methods — Part 1: Determination of mass per unit area (ISO 9073-1)*

EN ISO 534, *Paper and board — Determination of thickness, density and specific volume (ISO 534)*

EN ISO 536, *Paper and board — Determination of grammage (ISO 536)*

EN ISO 5084, *Textiles — Determination of thickness of textiles and textile products (ISO 5084)*

EN ISO 9073-2, *Textiles — Test methods for nonwovens — Part 2: Determination of thickness (ISO 9073-2)*

EN ISO 12625-6, *Tissue paper and tissue products — Part 6: Determination of grammage (ISO 12625-6)*

EN ISO 10390, *Soil, treated biowaste and sludge — Determination of pH (ISO 10390)*

ISO 3310-1, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*

ISO 4591, *Plastics — Film and sheeting — Determination of average thickness of a sample, and average thickness and yield of a roll, by gravimetric techniques (gravimetric thickness)*

ISO 4593, *Plastics — Film and sheeting — Determination of thickness by mechanical scanning*