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Paper and board - Determination of Composition of
Paper and Board for Recycling by gravimetric analysis

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 17545:2021 sisaldab Euroopa standardi EN 17545:2021 ingliskeelset teksti.	This Estonian standard EVS-EN 17545:2021 consists of the English text of the European standard EN 17545:2021.
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EUROPEAN STANDARD

EN 17545

NORME EUROPÉENNE

EUROPÄISCHE NORM

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ICS 85.060

English Version

Paper and board - Determination of composition of paper and board for recycling by gravimetric analysis

Papiers et cartons - Détermination de la composition des papiers et cartons pour recyclage par analyse gravimétrique

Papier und Pappe - Bestimmung der Zusammensetzung von Altpapier zum Recycling durch gravimetrische Analyse

This European Standard was approved by CEN on 24 October 2021.

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Contents	Page
European foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Principle	5
5 Equipment and auxiliaries	5
6 Procedure	6
6.1 Sampling	6
6.2 Composition of paper and board for recycling	6
6.3 Gravimetric analysis	6
6.4 Assessment of other parameters	6
7 Test report	7
Annex A (informative) Possible presentation of results for a board grade	8
Annex B (informative) Possible presentation of results for a printers grade	9
Annex C (informative) Possible presentation of results for a graphic grade (1.11.00) with respect to EN 643	10
Bibliography	11

European foreword

This document (EN 17545:2021) has been prepared by Technical Committee CEN/TC 172 “Pulp, paper and board”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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Introduction

Paper and board for recycling is a valuable recovered raw material, widely traded in global markets. In Europe, the recognized grades of paper and board for recycling are defined in EN 643, which generally describes paper and board for recycling based on their point of origin or principal components.

For inspection, quality control or compliance purposes, the material should be analysed and the components should be identified and quantified. Results of this analysis determine if that material can be considered as paper and board for recycling as defined in EN 643 or any other agreed standard, including those defined in specific buyer/seller agreements.

The procedures defined in this document do not exclude the use of other methods of measurement if it has been proven that the results are in robust correlation with those obtained using this standard procedure.

This document is not specifically intended for routine monitoring of processes or quality, but the procedures described may be used to form the basis of an agreement between supplier and buyer to define the characteristics of material supplied.

1 Scope

This document describes a procedure to gravimetrically determine the physical composition of paper and board for recycling by manually separating/sorting the individual components (including any unwanted materials) and determining the relative masses.

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 17085, *Paper and board – Sampling procedures for paper and board for recycling*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

composition

relative masses of objects of a sample taken from a lot of paper and board for recycling, being paper and board in any shape and products made predominantly from paper and board (including any other cellulose fibre-based packaging materials), unwanted materials and prohibited materials

3.2

gravimetric analysis

quantitative determination of a component based on its mass

Note 1 to entry: The results are typically expressed as the mass of the material being considered as a percentage of the bulk mass.

4 Principle

A sample of paper and board for recycling is manually separated into different fractions, defined by the purpose of the examination. The different fractions are then weighed and the composition is expressed as the relative mass of each fraction.

5 Equipment and auxiliaries

The analysis shall be carried out in a suitable clean, dry, well-illuminated separated and covered area of appropriate size:

- The containers for sampling shall be clean and dry.
- The bins for separating different fractions of material shall be appropriately sized, clean and dry.

Calibrated weighing equipment, with a resolution sufficient enough to weigh to an accuracy of 0,1 % of the component to be weighed, shall be used.