SLOVENSKI STANDARD
SIST-TS CEN/TS 18345-1:2027

01-januar-2027

Papir, karton in lepenka - Laboratorijska preskusna metoda za oceno sposobnosti recikliranja materialov in izdelkov iz papirja, kartona in lepenke - 1. del: Običajni postopek recikliranja

Paper and board - Laboratory test method for recyclability assessment of paper and board-based materials and products - Part 1: Conventional recycling process

Papier und Pappe - Laborprüfverfahren zur Bewertung der Rezyklierbarkeit von Materialien und Produkten auf der Basis von Papier und Pappe: Recyclingfabriken mit konventionellem Verfahren

Sample Document

Papier et carton - Méthode d'essai en laboratoire pour l'évaluation de la recyclabilité des matériaux et produits à base de papier et carton - Partie 1 : Procédé de recyclage conventionnel

Ta slovenski standard je istoveten z: **CEN/TS 18345-1:2026**

ICS:

13.030.50	Recikliranje	Recycling
85.020	Postopki v proizvodnji papirja	Paper production processes

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TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

CEN/TS 18345-1

November 2026

ICS 85.060

English Version

Paper and board - Laboratory test method for recyclability assessment of paper and board-based materials and products - Part 1: Conventional recycling process

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European foreword

This document (CEN/TS 18345-1:2026) has been prepared by Technical Committee CEN/TC 172 “Pulp, paper and board”, the secretariat of which is held by DIN.

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Introduction

The paper and paper board value chain is an example of circularity, displaying very high recycling rates.

Moreover, technical innovation is creating new products from paper and board-based materials which are intended to become paper and board for recycling after their use.

To maintain and further increase the sustainability and circularity of the paper and board value chain and to help EU Member States and other European countries meet high recycling targets [1], it is important to ensure that paper and board-based products are recyclable by the paper industry. A laboratory test method is needed for assessing the technical recyclability of these materials and products.

The test method in this document emulates the most common phases of the industrial processes to measure the main parameters of recyclability of paper and board-based products based on current knowledge and technology.

This makes it possible to:

— supplement the evaluation of recyclability required by EN 13430 with regard to paper and board-based products that are sent for recycling in the paper industry;

— guide eco-design, in terms of recyclability, of paper and board-based products currently in use, as well as new materials under development and new additives that can affect the recyclability of the final product;

— support declarations related to the recyclability of materials or products based on grading systems developed by third-party organizations and regulation.

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[1] Directives 2018/851/EU, 2018/852/EU set high recycling targets for municipal waste and paper-based packaging (85% by 2025, 90% by 2030).

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1 Scope

This document describes a laboratory test method for determining the key parameters for evaluating the level of technical recyclability of a paper-based material and product, emulating the relevant phases of paper and board mills with conventional recycling process.

The assessment of the technical recyclability is out of the scope of this document.

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 ISO 638-1, *Paper, board, pulps and cellulosic nanomaterials — Determination of dry matter content by oven-drying method — Part 1: Materials in solid form (ISO 638-1)*

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

ISO 5263-1, *Pulps — Laboratory wet disintegration — Part 1: Disintegration of chemical pulps*

ISO 5269-2, *Pulps — Preparation of laboratory sheets for physical testing — Part 2: Rapid-Köthen method*

ISO 5815-1, *Water quality — Determination of biochemical oxygen demand after n days (BODn) — Part 1: Dilution and seeding method with allylthiourea addition*

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ISO 12641-1:2025, *Graphic technology — Prepress digital data exchange — Part 1: Colour targets for input scanner calibration*

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ISO 13130, *Laboratory glassware — Desiccators*

ISO 15705, *Water quality — Determination of the chemical oxygen demand index (ST-COD) — Small-scale sealed-tube method*

TAPPI/ANSI T 275, *Screening of pulp (Somerville-type equipment)*

3 Terms and definitions

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

ISO and IEC maintain terminology 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
paper
generic term for a range of materials in the form of a coherent sheet or web, excluding sheets or laps of pulp as commonly understood for paper making or dissolving purposes and non-woven products, made by deposition of vegetable, mineral, animal or synthetic fibres, or their mixtures, from a fluid suspension onto a suitable forming device, with or without the addition of other substances

Note 1 to entry: Papers may be coated, impregnated or otherwise converted, during or after their manufacture, without necessarily losing their identity as paper. In conventional papermaking processes, the fluid medium is water; new developments, however, include the use of air and other fluids.

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Note 2 to entry: In the generic sense, the term “paper” may be used to describe both paper and board as defined in this part of ISO 4046. The primary distinction between paper and board is normally based upon thickness or grammage, though in some instances the distinction will be based on the characteristics and/or end-use. For example, some materials of lower grammage, such as certain grades of folding boxboard and corrugating raw materials, are generally referred to as “board”, while other materials of higher grammage, such as certain grades of blotting paper, felt paper and drawing paper, are generally referred to as “paper”.

[SOURCE: ISO 4046-3:2016, 3.95]

3.2
board
cardboard
paperboard
generic term applied to certain types of paper frequently characterized by their relatively high rigidity

Note 1 to entry: In the generic sense, the term “paper” may be used to describe both paper and board as defined in this part of ISO 4046. The primary distinction between paper and board is normally based upon thickness or grammage, though in some instances the distinction will be based on the characteristics and/or end-use. For example, some materials of lower grammage, such as certain grades of folding boxboard and corrugating raw materials, are generally referred to as “board”, while other materials of higher grammage, such as certain grades of blotting paper, felt paper and drawing paper, are generally referred to as “paper”.

[SOURCE: ISO 4046-3:2016, 3.16]

3.3
paper-based product
article, predominantly consisting of paper or board

Note 1 to entry: Moulded products are included.

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3.4
recyclability
ability of a paper or board product to be recycled into new paper and board

3.5
technical recyclability
ability of a paper and board product to be recycled into new paper and board by means of an established recycling process

Note 1 to entry: The assessment of the technical recyclability is typically done by mimicking the recycling process by a suitable laboratory method and an appropriate assessment scheme.

Note 2 to entry: The term recyclability can also mean recyclability at scale.

3.6
paper and board mill with conventional process
type of process with low consistency pulper, coarse and fine screening steps and hydrocyclone cleaning step for heavyweight particles without deinking or other specialized technologies

Note 1 to entry: There are typically two kinds of heavy weight cleaners installed in conventional mills – in the stock preparation and in the approach flow system.

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