

ICS

English version

## Mapping of Future needs of standardisation in the paper and board sector for food contact applications

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties on 22-03-2019, the constitution of which was supported by CEN following the public call for participation made on 27-05-2018.

A list of the individuals and organizations which supported the technical consensus represented by the CEN Workshop Agreement is available to purchasers from the CEN-CENELEC Management Centre. These organizations were drawn from the following economic sectors: paper and board industry, carton makers, personal care and tissue producer, packaging producers, pulp and paper manufacturer, paper and board converters, printing ink industry, printing industry, forest industries, test laboratories.

The formal process followed by the Workshop in the development of the CEN Workshop Agreement has been endorsed by the National Members of CEN but neither the National Members of CEN nor the CEN-CENELEC Management Centre can be held accountable for the technical content of the CEN Workshop Agreement or possible conflict with standards or legislation. This CEN Workshop Agreement can in no way be held as being an official standard developed by CEN and its members.

The final review/endorsement round for this CWA was started on 04-03-2019 and was successfully closed on 22-03-2019. The final text of this CWA was submitted to CEN for publication on 12-06-2019.

This CEN Workshop Agreement is publicly available as a reference document from the National Members of the following countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Comments or suggestions from the users of the CEN Workshop Agreement are welcome and should be addressed to the CEN-CENELEC Management Centre.

## Introduction

The EU Single market cannot function properly without standardisation and harmonisation between markets of Member States. Standardisation would help the proper functioning of the EU Single market, by providing harmonisation of products and services, ensuring the products are safe and reliable on the market, preventing technical barriers to trade. New or changing technical regulations in different countries can create unnecessary difficulties in accessing the market. Discrepancies between product rules can cause additional compliance costs on exporting enterprises and restrict inter-EU trade.

The paper and board supply chain is experiencing the existence of those technical barriers to trade on a daily basis such as, for example, facing additional products' certification and analytical costs as a consequence of the lack of standards.

Paper and board is one of the most widely used food contact materials (exceeding 13,8 million tonnes per annum) and having a set of harmonised specific standards is very important for an accurate perception about the safety of its food contact applications.

The lack of reliable harmonised standards may cause misconceptions about the safety of food contact materials and articles made of paper and board, building a wrong and persistent perception on the existence of safety risks. The request for safety in food contact materials is a fundamental matter for all actors along the supply chain, as protecting consumer health is a priority for the industry. The attention to safety issues has become more pressing in the past years and the awareness of consumers and consumer's organisations has only increased with social media.

Moreover, not having such standards for paper and board materials and articles for food contact applications also has negative effects on the downstream industry sectors, notably the food industry, which is very close and particularly attentive to consumers' needs: as the largest manufacturing sector of the EU it is a key sector for the EU economy and supports increased harmonisation in the area.

Currently, compliance testing made in one EU Member State on the basis of non-harmonised European standards may not be valid in another EU Member State, leading to unnecessary and burdensome bureaucracy, extra testing and related costs and may have already created competitive disadvantages to the sector. The latter holds true for all companies of any size but especially for the Small and Medium Enterprises (SMEs) along the P&B supply chain; two-thirds of the paper manufacturing companies are SMEs and the share of SMEs is even bigger in the downstream of the value chain.

Currently in addition to relevant national legislation, Regulations 1935/2004 on materials and articles intended to come into contact with food [1] and Regulation (EC) 2023/2006 on good manufacturing practice for materials and articles intended to come into contact with food [3] are the "umbrella" legislative framework applicable to any material. However, they do not include any technical specifications or standards for the paper industry.

The objective of this CWA is to identify and promote new or complementary areas or subjects for future standardisation in the paper and board sector as to support market harmonisation, harmonised testing methods, promote quality, efficiency increased reliability and safety.

## 1 Scope

This document provides the mapping of the immediate standardisation needs in the European paper and board value chain and the identification of gaps in the existing standards.

Based on the experience of the Paper and Board Industry, this document describes the needs loosely as contained in the voluntary Industry Guideline <sup>[17]</sup>.

This CEN Workshop Agreement (CWA) will serve later as a critical signpost for working towards a (set of) future harmonised standard(s).

The final CWA will be promoted among stakeholders within the relevant paper and board industries and national authorities as well as towards the European institutions.

The scope of this document covers materials and articles constituted mainly of paper and board <sup>1</sup> which may comprise one or more layers of fibre and in their finished state are:

- intended to be brought into contact with food or
- can reasonably be expected to be brought into contact with food or
- to transfer their constituents to food under normal or foreseeable conditions of use.

In particular it covers:

- a) untreated paper and board dyed and undyed;
- b) coated papers including those coated with polymeric dispersions (without mineral fillers) as well as mineral coated paper and board and the components of the coating formula, including polymeric binders and waxed papers dyed and undyed;
- c) tissue products, non-printed, printed and dyed, mainly intended for wiping and absorption e.g. kitchen towels and napkins with only occasional and short time contact;
- d) multi-material-multi-layer materials formed by extrusion or lamination of paper and board with other materials dyed and undyed;
- e) paper and board for filtering and baking applications;
- f) easy release papers, siliconised or treated with wax; bleached/unbleached;
- g) converted articles made of paper and board i.e. printed, unprinted and glued bags, boxes, wrappings etc;
- h) secondary and tertiary packaging applications and transport packaging (when the risk assessment for these applications indicates possible transfer of constituents to the packaged foodstuff).

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<sup>1</sup> Excluding non-wovens as defined by EN ISO 9092, Nonwovens - Vocabulary

All products mentioned above (a–h) are intended in all forms: dyed and undyed and bleached and unbleached.

Any standard related to laboratory testing methods addressing paper for food contact, already developed by CEN, is excluded from 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 643, *Paper and board - European list of standard grades of paper and board for recycling*

EN 645, *Paper and board intended to come into contact with foodstuffs - Preparation of a cold water extract*

EN 646, *Paper and board intended to come into contact with foodstuffs - Determination of colour fastness of dyed paper and board*

EN 647, *Paper and board intended to come into contact with foodstuffs - Preparation of a hot water extract*

EN 648, *Paper and board intended to come into contact with foodstuffs - Determination of the fastness of fluorescent whitened paper and board*

EN 1104, *Paper and board intended to come into contact with foodstuffs - Determination of the transfer of antimicrobial constituents*

EN 1230-1, *Paper and board intended to come into contact with foodstuffs - Sensory analysis - Part 1: Odour*

EN 1230-2, *Paper and board intended to come into contact with foodstuffs - Sensory analysis - Part 2: Off-flavour (taint)*

EN 1541, *Paper and board intended to come into contact with foodstuffs - Determination of formaldehyde in an aqueous extract*

EN 12497, *Paper and board - Paper and board intended to come into contact with foodstuffs - Determination of mercury in an aqueous extract*

EN 12498, *Paper and board - Paper and board intended to come into contact with foodstuffs - Determination of cadmium, chromium and lead in an aqueous extract*

EN 14338, *Paper and board intended to come into contact with foodstuffs - Conditions for determination of migration from paper and board using modified polyphenylene oxide (MPPPO) as a simulant*

EN 14719, *Pulp, paper and board - Determination of the Diisopropylnaphthalene (DIPN) content by solvent extraction*

EN 15519, *Paper and board intended to come into contact with foodstuffs - Preparation of an organic solvent extract*

EN 16453, *Pulp, paper and paperboard - Determination of phthalates in extracts from paper and paperboard*

EN 17163, *Pulp, paper and board- Determination of primary aromatic amines (PAA) in a water extract by a LC-MS method*

EN ISO 15318, *Pulp, paper and board - Determination of 7 specified polychlorinated biphenyls (PCB)*

EN ISO 15320, *Pulp, paper and board - Determination of pentachlorophenol in an aqueous extract*

ISO 8784-1, *Pulp, paper and board -- Microbiological examination – Part 1: Enumeration of bacteria and bacterial spores based on disintegration*

ISO 13302, *Sensory analysis – Methods for assessing modifications to the flavour of foodstuffs due to packaging*

DIN 54378, *Testing of paper and board; determination of the surface colony count OKZs*

### 3 Terms and definitions

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

#### 3.1

##### **adhesive**

non metallic substances capable of joining materials with surface bonding (adhesion) and the bond possessing adequate internal strength (cohesion)

#### 3.2

##### **blank**

shaped, flat piece of paper or board for use in a subsequent process e.g. folding/gluing into a frozen food box or milk carton

#### 3.3

##### **bleaching (of wood pulp/ fibres)**

removal or modification, to a greater or lesser extent, of coloured components of pulp with a view to increasing its brightness

#### 3.4

##### **board**

generic term applied to certain types of paper frequently characterised by their relative high rigidity. 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

Note 1 to entry: For example, some materials of lower grammage, such as certain grades of folding boxboard and corrugated 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”.

#### 3.5

##### **business operator**

any undertaking, whether for profit or not and whether public or private, carrying out any of the activities related to any stage of manufacture, processing and distribution of materials and articles