TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

CEN/TS 17497

August 2020

ICS 85.060

English Version

Pulp, paper and paperboard - Determination of bisphenol A in extracts from paper and paperboard

Cellulose, papier et carton - Détermination des bisphénol A dans des extraits de papier et carton

Zellstoff, Papier und Karton - Bestimmung von Bisphenol A in Papier- und Kartonextrakten

This Technical Specification (CEN/TS) was approved by CEN on 19 July 2020 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

CEN members are the national standards bodies of 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 North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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

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

Ref. No. CEN/TS 17497:2020 E

Contents

Page

European foreword

This document (CEN/TS 17497:2020) has been prepared by Technical Committee CEN/TC 172 “Pulp, paper and board”, the secretariat of which is held by DIN.

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.

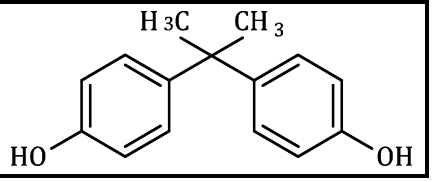
According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document specifies an analytical test method for the determination of bisphenol A in solvent extracts of paper and board materials and articles intended to come into contact with foodstuffs using a high performance liquid chromatograph coupled to a fluorescence detector (HPLC-FLD).

This method can be applied to determine bisphenol A (see Table 1) in concentrations ranging from 0,025 mg/l to 2 mg/l in the solvent extracts, corresponding to 0,05 mg/kg to 4 mg/kg paper and board. The measurement range can easily be extended up to 40 mg/kg by adjusting the concentration factor of the solvent extract.

Table 1 — Bisphenol A

Name	Abbreviation	Formula	CAS N°	Structure
Bisphenol A	BPA	$C_{15}H_{16}O_2$	80–05–7	

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 186, *Paper and board - Sampling to determine average quality (ISO 186)*

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

EN ISO 638, *Paper, board and pulps - Determination of dry matter content - Oven-drying method (ISO 638)*

3 Terms and definitions

No terms and definitions are listed in this document.

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

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

4 Principle

To assess the content of bisphenol A in paper and board materials, solvent extracts of these are prepared and bisphenol A is determined in the concentrated extracts by HPLC-FLD.

Also, liquid chromatography-mass spectrometry (LC-MS) can be used as an alternative method.