



BSI Standards Publication

**Construction products: Assessment of
release of dangerous substances - Analysis
of organic substances in eluates**

National foreword

This Published Document is the UK implementation of CEN/TS 17332:2019.

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A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

**Construction products: Assessment of release
of dangerous substances - Analysis of organic
substances in eluates**

Produits de construction: Evaluation de l'émission
de substances dangereuses - Analyse des
substances organiques contenues dans les éluats

Bauprodukte: Bewertung der Freisetzung
von gefährlichen Stoffen - Analyse von
organischen Stoffen in Eluaten

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European foreword

This document (CEN/TS 17332:2019) has been prepared by Technical Committee CEN/TC 351 “Construction products: Assessment of release of dangerous substances”, the secretariat of which is held by NEN.

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Introduction

This Technical Specification deals with the determination of organic substances in eluates which have been obtained by leaching of construction products.

Following an extended evaluation of available methods for content and eluate analysis in construction products (CEN/TR 16045 [1]) it was concluded that eluate analysis methods are very similar to analytical methods used to determine organic substances in water. The present document is similar in structure to EN 16192 [2].

This standard is part of a modular horizontal approach and belongs to the analytical step. An overview of all modules which belong to a chain of measurement and the manner how modules are selected is given in CEN/TR 16220 [3].

In the growing amount of product and sector oriented test methods it was recognized that many steps in test procedures are or could be used in test procedures for many products, materials and sectors. It was supposed that, by careful determination of these steps and selection of specific questions within these steps, elements of the test procedure could be described in a way that can be used for all materials and products or for all materials and products with certain specifications.

In this context a horizontal modular approach is adopted in CEN/TC 351. 'Horizontal' means that the methods can be used for a wide range of materials and products with certain properties. 'Modular' means that a test standard developed in this approach concerns a specific step in assessing a property and not the whole 'chain of measurement' (from sampling to analyses). A beneficial feature of this approach is that 'modules' can be replaced by better ones without jeopardizing the standard 'chain'.

The use of modular horizontal standards implies the drawing of test schemes as well. Before executing a test on a certain material or product to determine certain characteristics it is necessary to draw up a protocol in which the adequate modules are selected and together form the basis for the entire test procedure.

This module relates to CEN/TS 16637-1 [4], CEN/TS 16637-2 and CEN/TS 16637-3.

1 Scope

This document specifies existing methods for the determination of specific organic substances in aqueous eluates from leaching of construction products.

The following parameters are covered: pH, electrical conductivity, biocides, bisphenol A, BTEX, dioxins and furans, DOC, epichlorohydrin, mineral oil, nonylphenols, PAH, PBDE, PCB, dioxin-like PCB, PCP, phenols and phthalates.

NOTE 1 Methods still under development or available at national level only are listed in [Annex B](#) for certain amines, AOX, and biocidal and plant protection products.

NOTE 2 Methods that have not been validated for aqueous eluates from leaching of construction products, because no suitable material was available at the time of the robustness validation, only are listed in [Annex B](#). This applies to organotin compounds.

The methods in this document come from different fields, mainly the analysis of water, and are applicable for the eluates from construction products. They are validated for eluates of the product types listed in [Annex A](#).

NOTE 3 Construction products include, e.g. mineral-based products, bituminous products, wood-based products, polymer-based products and metals. This document includes analytical methods for all matrices except metals.

The selection of the method to be applied is based on the product matrix and the required sensitivity.

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 1484, *Water analysis — Guidelines for the determination of total organic carbon (TOC) and dissolved organic carbon (DOC)*

EN 12673, *Water quality — Gas chromatographic determination of some selected chlorophenols in water*

EN 14207, *Water quality — Determination of epichlorohydrin*

EN 15637, *Foods of plant origin — Determination of pesticide residues using LC-MS/MS following methanol extraction and clean-up using diatomaceous earth*

CEN/TS 16637-2, *Construction products — Assessment of release of dangerous substances — Part 2: Horizontal dynamic surface leaching test*

CEN/TS 16637-3, *Construction products — Assessment of release of dangerous substances — Part 3: Horizontal up-flow percolation test*

EN 16687:2015, *Construction products — Assessment of release of dangerous substances — Terminology*

EN 16694, *Water quality — Determination of selected polybrominated diphenyl ether (PBDE) in whole water samples — Method using solid phase extraction (SPE) with SPE-disks combined with gas chromatography-mass spectrometry (GC-MS)*

EN 27888, *Water quality — Determination of electrical conductivity (ISO 7888)*

EN ISO 5667-3, *Water quality — Sampling — Part 3: Preservation and handling of water samples (ISO 5667-3)*

EN ISO 9377-2, *Water quality — Determination of hydrocarbon oil index — Part 2: Method using solvent extraction and gas chromatography (ISO 9377-2)*