



BSI Standards Publication

**Durability of wood and  
wood-based products —  
Determination of emissions  
from preservative treated  
wood to the environment —  
Wooden commodities exposed  
in Use Class 3 (Not covered, not  
in contact with the ground) —  
Semi-field method**

**National foreword**

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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

**Durability of wood and wood-based products - Determination of emissions from preservative treated wood to the environment - Wooden commodities exposed in Use Class 3 (Not covered, not in contact with the ground) - Semi-field method**

Durabilité du bois et des matériaux dérivés du bois - Détermination des émissions dans l'environnement du bois traité avec des produits de préservation - Produits de base en bois exposés à la classe d'emploi n° 3 (dans un endroit abrité, n'étant pas en contact avec le sol) - Méthode semi-terrain

Dauerhaftigkeit von Holz und Holzprodukten - Abschätzung von Emissionen von mit Holzschutzmitteln behandeltem Holz an die Umwelt - Holzprodukte in Gebrauchsklasse 3 (nicht abgedeckt, ohne Erdkontakt) - Semi-Feldverfahren

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## **Foreword**

This document (CEN/TR 16663:2014) has been prepared by Technical Committee CEN/TC 38 “Durability of wood and wood-based products”, the secretariat of which is held by AFNOR.

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

## **Introduction**

The leaching from preservative treated wood into the environment need to be quantified to enable an environmental risk assessment to be made of the treated wood, e.g. according to the Biocidal Products Regulation, 528/2012. This document describes a semi-field method for the determination of leachate from preservative treated wood where the preservative treated wood is not covered and not in contact with the ground or water (use class 3 according to EN 335).

The method is a semi-field procedure for obtaining water samples (leachate) from treated wood exposed out of ground contact, during a natural exposure. The quantities of emissions in the leachate are related to the surface area of the wood and may be used in scenarios for the environmental risk assessment of the treated wood.

NOTE      The leachate can also be tested for eco-toxicological effects (example: OECD 202 testing on *Daphnia* sp.).

## **1 Scope**

This Technical Report specifies a method for determining the leaching of active ingredients or other compounds from preservative treated wood by a semi-field method for use class 3 (outdoor above ground). The preservative treated wood can be tested with or without subsequently surface coating or other water-repellent treatment. The method is applicable to the testing of commercial or experimental preservatives or paint systems applied to timber by methods appropriate to commercial practice.

## **2 Normative references**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

## **3 Description of the test method**

### **3.1 Principle**

Panels are treated, assembled and placed outdoors, out of ground contact and exposed to the normal environmental and ecological factors which affect preservative treated wood so exposed in practice. The rainwater is retained and the leachate is monitored by chemical analyses of the active ingredients and/or other compounds.

### **3.2 Quality criteria**

The validity of the analytical method for the substances in question should be determined before conducting the test:

- a) accuracy;
- b) specificity;
- c) limit of detection (LOD);
- d) limit of quantification (LOQ);
- e) precision

NOTE EN ISO 5667-3 may give guidance on the preservation and handling of water samples.

### **3.3 Wood preservative**

The test report shall state the name and other designation of the preservative, and the trade or common name of the active ingredient(s) as defined in the regulation n°528/2012.

Use of a coating is possible (identity and amount of coating used shall be stated in the test report).