

STN	Fotokatalýza Čistenie vody Účinnosť fotokatalytických materiálov meraním odbúravanja fenolu	STN EN 17120 03 9009
------------	--	--

Photocatalysis - Water purification - Performance of photocatalytic materials by measurement of phenol degradation

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/19

Obsahuje: EN 17120:2019

129090

EUROPEAN STANDARD

EN 17120

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2019

ICS 25.220.20

English Version

Photocatalysis - Water purification - Performance of photocatalytic materials by measurement of phenol degradation

Photocatalyse - Purification de l'eau - Évaluation des performances des matériaux photocatalytiques par mesurage de la dégradation du phénol

Photokatalyse - Wasserreinigung - Leistungsbewertung von photokatalytischen Werkstoffen durch Messung des Phenolabbaus

This European Standard was approved by CEN on 19 November 2018.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, 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

EN 17120:2019 (E)

Contents		Page
European foreword		3
1	Scope	4
2	Normative references	4
3	Terms and definitions	4
4	Abbreviations	5
5	Principle	5
6	Interferences	5
7	Equipment and materials	6
7.1	Irradiation system and photo-reactor	6
7.2	HPLC analysis apparatus	7
7.3	TOC analyser (optional)	7
7.4	Other Equipment and materials	7
7.5	Photocatalytic reference material	7
8	Test method procedure	8
9	Reporting of results	9
Annex A (informative) Results of round-robin test		10
Bibliography		12

European foreword

This document (EN 17120:2019) has been prepared by Technical Committee CEN/TC 386 "Photocatalysis", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2019, and conflicting national standards shall be withdrawn at the latest by August 2019.

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 implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 17120:2019 (E)**1 Scope**

This document describes a test method to evaluate the performance of photocatalytic materials in water purification by measuring phenol degradation. This test method is applicable to photocatalytic materials in form of powders (suspensions in water, slurries) under UV irradiation. The photocatalytic performance of the tested material is assessed by the observed rate of phenol degradation at specified experimental conditions as determined by HPLC.

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 1484:1997, *Water analysis - Guidelines for the determination of total organic carbon (TOC) and dissolved organic carbon (DOC)*

CEN/TS 16599:2014, *Photocatalysis — Irradiation conditions for testing photocatalytic properties of semiconducting materials and the measurement of these conditions*

ISO 8245:1999, *Water quality – Guidelines for the determination of total organic carbon (TOC) and dissolved organic carbon (DOC)*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN