Glass in building - Coated glass - Part 5 - Test method and classification for the self-cleaning performances of coated glass surfaces



# EESTI STANDARDI EESSÕNA

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Standard on jõustunu avaldamisega EVS Teataja		This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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# ICS 81.040.20

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# EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

EN 1096-5

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# **English Version**

# Glass in building - Coated glass - Part 5 - Test method and classification for the self-cleaning performances of coated glass surfaces

Verre dans la construction - Verre à couche - Partie 5: Méthode d'essai et classification des performances autonettoyantes des surfaces de verre à couche Glas im Bauwesen - Beschichtetes Glas - Teil 5: Prüfverfahren und Klasseneinteilung für das Selbstreinigungsverhalten von beschichteten Glasoberflächen

This European Standard was approved by CEN on 30 November 2015.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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#### **Contents** Page European foreword......4 Scope......5 2 3 Terms and definitions ......5 4 Symbols and abbreviations ......6 5 6.1 6.2 6.3 6.4 Dirt mixture pressure tank.......8 Water pressure tank .......8 6.5 Timer for spray .......8 6.6 Furnace used to dry the glasses ......8 6.7 Preparation of the glass samples......9 7 7.1 Tested sample.......9 7.2 7.3 8 8.1 Unexposed surface cleaning......11 Position of haze measurements on the samples......11 8.2 8.3 Measurement of transmission haze \_\_\_\_\_\_12 Preparation of dirt mixture.......12 9.1 9.2 9.3 9.4 9.5 10 10.1 10.2 10.3.5 UV-A irradiation ....... 16

10.3.8	Drying	17
10.3.9	Haze measurement after deionized water spray	17
10.4	Second cycle	17
10.5	Collection of the results	17
11	Classification	18
12	Test report	18
Annex	A (normative) Sample support and spray installation	19
<b>A.1</b>	Spray rig	19
A.2	Spray system	20
Annex	B (normative) Haze measurement method	22
<b>B.1</b>	General	22
<b>B.2</b>	The instrument	22
<b>B.3</b>	Calculation	
<b>B.4</b>	Values	24
B.5	Short cut procedures	24
Annex	C (normative) Contamination checking procedure	25
<b>C.1</b>	General	25
<b>C.2</b>	Evaluation of the contamination of the test environment	25
<b>C.3</b>	Irregular contamination of the sample	25
	D (normative) Statistical analysis of test results – Calculation of statistical numbers to obtain a self-cleaning functionality used for classification of coated glass	
Annex	E (informative) Round Robin tests	27
E.1	General	
<b>E.2</b>	Typical results	
E.3	Results interpretation	29
Piblio	manhy	21

# **European foreword**

This document (EN 1096-5:2016) has been prepared by Technical Committee CEN/TC 129 "Glass in building", the secretariat of which is held by NBN.

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 July 2016, and conflicting national standards shall be withdrawn at the latest by July 2016.

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.

This part of the standard is published to allow the test methodology to be used.

As stated in the scope, at the present time, the test procedure does not specifically address the durability of the coating's self-cleaning functionality. Work is on-going to develop applicable testing.

EN 1096, *Glass in building — Coated glass*, is composed of the following parts:

- Part 1: Definitions and classification;
- Part 2: Requirements and test methods for A, B and S coatings;
- Part 3: Requirements and test methods for C and D coatings;
- Part 4: Evaluation of conformity/Product standard;
- Part 5: Test method and classification for the self-cleaning performances of coated glass surfaces.

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard defines a test method to establish the self-cleaning performances for coatings on glass which utilize sun, rain or a combination of sun and rain to enhance the cleanliness of the glass.

The European Standard applies to class A coated glass as defined in EN 1096-1 and EN 1096-2 for use in outdoor building applications. The test is designed to be applicable for coatings on glass which use hydrophilic or photocatalytic active functionalities to enhance the cleanliness of the glass.

The test procedure does not specifically address the durability of the coating's self-cleaning functionality.

#### 2 Normative references

The following referenced 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 1096-1, Glass in building - Coated glass - Part 1: Definitions and classification

EN ISO 4892-3:2013, Plastics - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps (ISO 4892-3:2013)

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1096-1 and the following apply.

#### 3.1

#### glass substrate

basic glass, special basic glass, chemically strengthened basic glass, thermally treated basic and special basic glass, laminated glass or laminated safety glass

# 3.2

#### coating

one or more thin solid layers of inorganic materials applied onto the surface of a glass substrate by various methods of deposition

Note 1 to entry: Methods of deposition are described in EN 1096-1.

#### 3.3

#### glass with dual coating

glass substrates to which coatings have been applied on both sides

Note 1 to entry: The second coating should not necessarily be a self-cleaning coating.

#### 3.4

#### coated glass

glass substrate to which has been applied a coating, in order to modify one or more of its properties