Paints and varnishes - Coating materials and coating systems for exterior masonry and concrete - Part 3: Determination of liquid water permeability

Paints and varnishes - Coating materials and coating systems for exterior masonry and concrete - Part 3: Determination of liquid water permeability



### **EESTI STANDARDI EESSÕNA**

### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 1062-3:2008 sisaldab Euroopa standardi EN 1062-3:2008 ingliskeelset teksti. This Estonian standard EVS-EN 1062-3:2008 consists of the English text of the European standard EN 1062-3:2008.

Standard on kinnitatud Eesti Standardikeskuse 27.02.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas. This standard is ratified with the order of Estonian Centre for Standardisation dated 27.02.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 15.01.2008.

Date of Availability of the European standard text 15.01.2008.

Standard on kättesaadav Eesti standardiorganisatsioonist.

The standard is available from Estonian standardisation organisation.

### ICS 87.040

**Võtmesõnad:** classifications, concrete, determination, exteriors, masonry works, paints, protective coatings, test specimen, tests, varnishes, water permeability

# Standardite reprodutseerimis- ja levitamisõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega: Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 1062-3

January 2008

ICS 87.040

Supersedes EN 1062-3:1998

### **English Version**

# Paints and varnishes - Coating materials and coating systems for exterior masonry and concrete - Part 3: Determination of liquid water permeability

Peintures et vernis - Produits de peinture et systèmes de revêtements pour maçonnerie et béton extérieurs - Partie 3 : Détermination de la perméabilité à l'eau liquide

Beschichtungsstoffe - Beschichtungsstoffe und Beschichtungssysteme für mineralische Substrate und Beton im Außenbereich - Teil 3: Bestimmung der Wasserdurchlässigkeit

This European Standard was approved by CEN on 25 November 2007.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Scope 5   Normative references 5   Principle 5   Apparatus 5   Sampling 6   Test specimens 6   .1 General 6   .2 Substrate 6   .3 Preparation and coating 6   .4 Drying and conditioning 6   Procedure 7   Expression of results 7   Precision 7   Repeatability 7   .2 Reproducibility 8   0 Test report 8	JUI	iterits		Page
Scope	_	7.0		
Scope 5   Normative references 5   Principle 5   Apparatus 5   Sampling 6   Test specimens 6   General 6   1.2 Substrate 6   3.3 Preparation and coating 6   3.4 Drying and conditioning 6   4 Procedure 7   3 Expression of results 7   Precision 7   1.1 Repeatability 7   1.2 Reproducibility 8   10 Test report 8				
2 Normative references 5   3 Principle 5   4 Apparatus 5   5 Sampling 6   6 Test specimens 6   6.1 General 6   6.2 Substrate 6   6.3 Preparation and coating 6   6.4 Drying and conditioning 6   7 Procedure 7   8 Expression of results 7   9 Precision 7   9.1 Repeatability 7   9.2 Reproducibility 8   10 Test report 8	ntro			
3 Principle 5   4 Apparatus 5   5 Sampling 6   6 Test specimens 6   5.1 General 6   5.2 Substrate 6   5.3 Preparation and coating 6   5.4 Drying and conditioning 6   7 Procedure 7   8 Expression of results 7   9 Precision 7   9.1 Repeatability 7   9.2 Reproducibility 8   10 Test report 8	1			
4 Apparatus 5   5 Sampling 6   6 Test specimens 6   6.1 General 6   6.2 Substrate 6   6.3 Preparation and coating 6   6.4 Drying and conditioning 6   7 Procedure 7   8 Expression of results 7   9 Precision 7   9.1 Repeatability 7   9.2 Reproducibility 8   10 Test report 8	2			
5 Sampling 6   6 Test specimens 6   5.1 General 6   5.2 Substrate 6   5.3 Preparation and coating 6   6.4 Drying and conditioning 6   7 Procedure 7   8 Expression of results 7   9 Precision 7   9.1 Repeatability 7   9.2 Reproducibility 8   10 Test report 8	3	•		
6 Test specimens 6   3.1 General 6   3.2 Substrate 6   3.3 Preparation and coating 6   3.4 Drying and conditioning 6   4 Procedure 7   3 Expression of results 7   9 Precision 7   9.1 Repeatability 7   9.2 Reproducibility 8   10 Test report 8	4	• •		
6.1 General 6   6.2 Substrate 6   6.3 Preparation and coating 6   6.4 Drying and conditioning 6   7 Procedure 7   8 Expression of results 7   9.1 Repeatability 7   9.2 Reproducibility 7   8 Test report 8	5	. •		
5.2 Substrate 6   5.3 Preparation and coating 6   6.4 Drying and conditioning 6   7 Procedure 7   8 Expression of results 7   9 Precision 7   9.1 Repeatability 7   9.2 Reproducibility 8   10 Test report 8	6			
3.3 Preparation and coating 6   5.4 Drying and conditioning 6   7 Procedure 7   8 Expression of results 7   9 Precision 7   9.1 Repeatability 7   9.2 Reproducibility 8   10 Test report 8	-			
7 Procedure .7   8 Expression of results .7   9 Precision .7   9.1 Repeatability .7   9.2 Reproducibility .8   10 Test report .8	6.3	Preparation and coating		6
Expression of results	6.4			
Precision	7	Procedure		7
Precision	8	Expression of results		7
0.2 Reproducibility	9	Precision		7
Test report	9.1 9.2			
		Test report	<i>5</i> ,	
			Ο,	
			4	
			(O).	
				Q <sup>2</sup>
				0.
				\ \ \
				$O_{\lambda}$

### **Foreword**

This document (EN 1062-3:2008) has been prepared by Technical Committee CEN/TC 139 "Paints and varnishes", the secretariat of which is held by DIN.

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 2008, and conflicting national standards shall be withdrawn at the latest by July 2008.

This document supersedes EN 1062-3:1998.

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.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, No. October School Scho Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

### Introduction

nun, Jr maso. This document is one of a number of parts of EN 1062 dealing with test methods for coating materials and coating systems for exterior masonry and concrete. It should be read in conjunction with EN 1062-1.

### 1 Scope

This European Standard specifies a method for determining the liquid water permeability of coatings, coating systems and related products, intended for exterior masonry and classification according to EN 1062-1.

The method is applicable to coatings and coating systems on porous substrates such as brick, concrete and renderings.

A liquid water permeability w of more than 0,5 kg/(m<sup>2</sup> x h<sup>0,5</sup>) will not be accurately quantified by the test method described in this standard.

### 2 Normative references

The following referenced documents are indispensable for the application 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 1062-1, Paints and varnishes – Coating materials and coating systems for exterior masonry and concrete — Part 1: Classification

EN 23270, Paints and varnishes and their raw materials — Temperatures and humidities for conditioning and testing (ISO 3270:1984)

EN ISO 1513, Paints and varnishes — Examination and preparation of samples for testing (ISO 1513:1992)

EN ISO 15148, Hygrothermal performance of building materials and products — Determination of water absorption coefficient by partial immersion (ISO 15148:2002)

EN ISO 15528, Paints, varnishes and raw materials for paints and varnishes - Sampling (ISO 15528:2000)

### 3 Principle

Exterior masonry coatings play an important role in preventing rain water penetrating into porous mineral substrates. This transmission rate for liquid water is evaluated using blocks of highly porous mineral substrates which are coated by the coating or coating system on one of their faces. The test specimens are immersed under controlled conditions in water and weighed at suitable intervals of time. The liquid water permeability is determined by the change in mass.

### 4 Apparatus

- **4.1 Container** of suitable size, for deionized water or fresh tap water (potable water), provided with supports for the test specimens.
- **4.2** Oven capable of being maintained at a temperature of  $(50 \pm 2)$  °C.
- **4.3** Balance, capable of weighing 2 000 g to 0,1 g.