

**DUŠIKABIINID. FUNKTSIONAALSED NÕUDED JA
KATSEMEETODID**

Shower enclosures - Functional requirements and test methods

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 14428:2015+A1:2018 sisaldab Euroopa standardi EN 14428:2015+A1:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 14428:2015+A1:2018 consists of the English text of the European standard EN 14428:2015+A1:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 31.10.2018.	Date of Availability of the European standard is 31.10.2018.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 91.140.70

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

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

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:

Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

EN 14428:2015+A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2018

ICS 91.140.70

Supersedes EN 14428:2015

English Version

Shower enclosures - Functional requirements and test methods

Parois de douche - Prescriptions fonctionnelles et méthodes d'essai

Duschabtrennungen - Funktionsanforderungen und Prüfverfahren

This European Standard was approved by CEN on 19 March 2015 and includes Amendment 1 approved by CEN on 17 May 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

Contents	Page
European foreword.....	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 A1 Characteristics A1	6
4.1 General	6
4.2 Cleanability	6
4.3 Impact resistance/shatter properties	6
4.3.1 General	6
4.3.2 Thermally toughened safety glass	6
4.3.3 Laminated safety glass	6
4.3.4 Plastics materials	6
4.4 Durability	6
4.4.1 General	6
4.4.2 Corrosion resistance	7
4.4.3 Resistance to chemicals and stains	7
4.4.4 Resistance to wet and dry cycling	7
4.4.5 Endurance	7
4.4.6 Stability	7
4.4.7 Water retention	7
4.5 Dangerous substances	7
5 Test methods	8
5.1 Impact resistance/shatter properties	8
5.1.1 General	8
5.1.2 Test specimens for curved glass	8
5.1.3 Procedure	8
5.1.4 Assessment of fragmentation	9
5.2 Impact behaviour of plastic sheets	13
5.2.1 Apparatus	13
5.2.2 Procedure	14
5.3 Resistance to chemicals and stains	21
5.3.1 Reagents	21
5.3.2 Apparatus	22
5.3.3 Test specimens	24
5.3.4 Procedure	24
5.3.5 Expression of results	24
5.4 Resistance to wet and dry cycling	24
5.4.1 Test specimens	24
5.4.2 Procedure	24
5.4.3 Results	25
5.5 Endurance	25
5.6 Stability	25
5.7 Water retention	27
6 Marking	31

7	Assessment and verification of constancy of performance - AVCP	32
7.1	General	32
7.2	Type testing	32
7.2.1	General	32
7.2.2	Samples, testing and compliance criteria	33
7.3	Factory production control	33
7.3.1	General	33
7.3.2	Equipment	33
7.3.3	Raw materials and components	34
7.3.4	Product testing and assessment	34
7.3.5	Non-conforming products	34
7.3.6	Corrective action	34
Annex ZA (informative)  Relationship of this European Standard with Regulation (EU) No. 305/2011 		
		35
ZA.1	Scope and relevant characteristics	35
ZA.2	System of Assessment and Verification of Constancy of Performance (AVCP)	35
ZA.3	Assignment of AVCP tasks	35
Bibliography		37

European foreword

This document (EN 14428:2015+A1:2018) has been prepared by Technical Committee CEN/TC 163 "Sanitary appliances", the secretariat of which is held by UNI.

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 April 2019, and conflicting national standards shall be withdrawn at the latest by July 2020.

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.

This document includes Amendment 1 approved by CEN on 2018-05-17.

This document supersedes A1 EN 14428:2015 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

For relationship with EU Construction Products Regulation, see informative Annex ZA, which is an integral part of this document.

A1 *deleted text* A1

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

1 Scope

This European Standard specifies $\overline{A_1}$ characteristics $\overline{A_1}$ for shower enclosures for domestic purposes which ensure that the product, when installed in accordance with the manufacturer's installation instructions, gives satisfactory performance when used as intended.

This European Standard does not apply to shower cabinets or curtains and does not specify aesthetic and dimensional $\overline{A_1}$ characteristics $\overline{A_1}$.

NOTE For the purposes of this document the term “domestic purposes” includes use in hotels, accommodation for students, hospitals and similar buildings, except when special medical provisions are required.

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.

prEN 12150-1:2013, *Glass in building — Thermally toughened soda lime silicate safety glass — Part 1: Definition and description*

EN 14449, *Glass in building — Laminated glass and laminated safety glass — Evaluation of conformity/Product standard*

EN ISO 2409, *Paints and varnishes — Cross-cut test (ISO 2409:2013)*

EN ISO 7599, *Anodizing of aluminium and its alloys — General specifications for anodic oxidation coatings on aluminium (ISO 7599:2010)*

EN ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests (ISO 9227:2012)*

EN ISO 12543-2, *Glass in building — Laminated glass and laminated safety glass — Part 2: Laminated safety glass (ISO 12543-2:2011)*

ISO 7892:1988, *Vertical building elements — Impact resistance tests — Impact bodies and general test procedures*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

shower enclosure

arrangement of panel(s) and/or door(s) (i.e full or half-height access door(s)) erected on or around a drained shower place, shower tray or bath in conjunction with one or more walls of the main building structure to provide a water retaining area for the purpose of showering

3.2

shower cabinet

prefabricated but not necessarily preassembled unit for the purpose of showering comprising a shower tray or bath and rigid water resistant enclosing wall(s), with or without a roof and with an entry capable of being closed to provide a fully enclosed compartment