



SLOVENSKI STANDARD

SIST EN 16580:2015

01-oktober-2015

Okna in vrata - Vratna krila, odporna proti vlagi in pršenju vode - Preskusi in razvrščanje

Windows and doors - Wetness and splash water proof door leaves - Test and classification

Fenster und Türen - Feuchte- und spritzwasserbeständige Türen - Prüfungen und Klassifizierung

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Portes et fenêtres - Vantaux de portes résistants à l'humidité et aux projections d'eau - Essai et classification

[SIST EN 16580:2015](#)

[https://standards.iteh.ai/catalog/standards/sist/49d0321c-471f-44b7-a3bd-](https://standards.iteh.ai/catalog/standards/sist/49d0321c-471f-44b7-a3bd-b78c340f0a91/sist-en-16580-2015)

[b78c340f0a91/sist-en-16580-2015](https://standards.iteh.ai/catalog/standards/sist/49d0321c-471f-44b7-a3bd-b78c340f0a91/sist-en-16580-2015)

Ta slovenski standard je istoveten z: EN 16580:2015

ICS:

91.060.50

Vrata in okna

Doors and windows

SIST EN 16580:2015

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 16580:2015](#)

<https://standards.iteh.ai/catalog/standards/sist/49d0321c-471f-44b7-a3bd-b78c340f0a91/sist-en-16580-2015>

EUROPEAN STANDARD

EN 16580

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2015

ICS 91.060.50

English Version

Windows and doors - Wetness and splash water proof door leaves - Test and classification

Portes et fenêtres - Vantaux de portes résistants à l'humidité et aux projections d'eau - Essai et classification

Fenster und Türen - Feuchte- und spritzwasserbeständige Türblätter - Prüfungen und Klassifizierung

This European Standard was approved by CEN on 27 June 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.

[SIST EN 16580:2015](https://standards.iteh.ai/catalog/standards/sist/49d0321c-471f-44b7-a3bd-b78c340f0a91/sist-en-16580-2015)

<https://standards.iteh.ai/catalog/standards/sist/49d0321c-471f-44b7-a3bd-b78c340f0a91/sist-en-16580-2015>



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

	Page
European foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Test specimen	5
5 Test description	6
5.1 General.....	6
5.2 Scope of testing.....	6
5.3 Spraying.....	6
5.4 Description of the test rig	7
5.5 Spraying liquid	8
6 Test procedure	9
6.1 Examination of the test specimen after delivery	9
6.2 Conditioning.....	9
6.3 Test.....	9
6.4 Measurement and visually assessment after ending the test.....	9
7 Classification.....	10
8 Test report	10
Bibliography	11

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 16580:2015

<https://standards.iteh.ai/catalog/standards/sist/49d0321c-471f-44b7-a3bd-b78c340f0a91/sist-en-16580-2015>

European foreword

This document (EN 16580:2015) has been prepared by Technical Committee CEN/TC 33 “Doors, windows, shutters, building hardware and curtain walling”, 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 February 2016 and conflicting national standards shall be withdrawn at the latest by February 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.

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.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 16580:2015](https://standards.iteh.ai/catalog/standards/sist/49d0321c-471f-44b7-a3bd-b78c340f0a91/sist-en-16580-2015)

<https://standards.iteh.ai/catalog/standards/sist/49d0321c-471f-44b7-a3bd-b78c340f0a91/sist-en-16580-2015>

EN 16580:2015 (E)

Introduction

Increased requirements for hygiene lead to more intensive cleaning; at the same time, the working time spent on cleaning will be shortened and this requires cleaning processes which are efficient and automatically more stressing for the door leaves.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 16580:2015](https://standards.iteh.ai/catalog/standards/sist/49d0321c-471f-44b7-a3bd-b78c340f0a91/sist-en-16580-2015)

<https://standards.iteh.ai/catalog/standards/sist/49d0321c-471f-44b7-a3bd-b78c340f0a91/sist-en-16580-2015>

1 Scope

This European Standard identifies the performance characteristic that is applicable to door leaves for pedestrian doors, independent of the material, that are exposed to extended periods of wetness and/or frequent splash water.

NOTE Rain is not considered as “frequent splash water” condition.

This European Standard does not apply to:

- door leaves exposed to liquid having a pH-value lower than 5.5 or higher than 8.5;
- door frames, complete door assemblies or doorsets.

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 951, *Door leaves - Method for measurement of height, width, thickness and squareness*

EN 952:1999, *Door leaves - General and local flatness - Measurement method*

EN 1027, *Windows and doors - Watertightness - Test method*

EN 1294, *Door leaves - Determination of the behaviour under humidity variations in successive uniform climates*

EN 1670, *Building hardware - Corrosion resistance - Requirements and test methods*

EN 12219:1999, *Doors - Climatic influences - Requirements and classification*

EN 12519:2004, *Windows and pedestrian doors - Terminology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12519:2004 and the following apply.

3.1

wetness door leaves

door leaves exposed to extended periods of wetness

3.2

splash water proof door leaves

door leaves used in areas where cleaning and/or splashing with water frequently takes place

4 Test specimen

The test shall be carried out on at least 3 test specimens of the same construction. Essential performance relevant design features of the constructive moisture protection shall be identical in all 3 specimens.

The width of the test specimen shall be between 800 mm to 1 000 mm and the height shall be between 1 900 mm to 2 250 mm. For specific projects or due to design and/or production constraints, other sizes can be used if clearly mentioned in the test report.

EN 16580:2015 (E)

The test specimen shall be mounted with all building hardware, including the handle. The mounting of the building hardware shall be done by the client or following the manufacturer's manual. Necessary drillings for the building hardware shall be done by the client or the manufacturer. The door leaf can either be mounted in a test frame with hinges or fixed in front of a frame by a tensioning belt. The lower edge of the door leaf shall have min. 10 mm free space to get a circulation of the spraying liquid.

The client shall define from which side the spraying load has to be applied.

5 Test description**5.1 General**

The test is carried out by bringing the door leaf in direct contact with water in specified intervals and afterwards identifies possible changes and/or cases of damage which adversely affect the usability and/or appearance of the door leaf.

5.2 Scope of testing

The test of wetness and splash water proof door leaves includes the following individual test sequences, each carried out before starting the test, after or during the test, and 24 h after the test sequence:

- measuring the thickness following the principles of EN 951;
- examination of errors in the general flatness according to EN 952;
- visual assessment of the specimen, especially the lower and lateral edges and the hinge and lock box area to identify possible changes in the local flatness.

Table 1 — Assessment criteria for testing of wetness and splash water capability

Criteria	Load Class	
	W (Wetness door leaf)	S (Splash water proof door leaf)
Thickness swell at the measuring points	max. 0,5 mm	max. 0,5 mm
Surface/surface layer	no apparent damage ^a	no apparent damage ^a
Door skin	no apparent damage ^a	no apparent damage ^a
Stiles and rails/concealed edge	no apparent damage ^a	no apparent damage ^a
Building hardware	no corrosion visible ^b	no corrosion visible ^b
Deformations	declaration following EN 12219:1999, Table 1 (at least Class 2)	declaration following EN 12219:1999, Table 1 (at least Class 2)

^a The assessment is made visually obvious damage, without tools.
^b The evaluation of "no visible corrosion of parts" does not make any statement concerning the corrosion behaviour according to EN 1670.

5.3 Spraying

The test of wetness door leaves consists of 48 cycles in total. Each cycle consists of 0,5 min of spraying and 29,5 min non-spraying time with (20 ± 2) °C water temperature.

The test of splash water proof door leaves consists of 96 cycles in total. Each cycle consists of 4 min of spraying and 26 min non-spraying time. Just after finalizing the 96 cycles the lowest 10 mm of the door leaf shall stay dipped down in the water for 1 h. All with (30 ± 2) °C water temperature.

5.4 Description of the test rig

The testing consists of a cyclic showering with water. The specimen is vertical installed in a special test rig constructed as a showering wall (see Figure 1). The door leaf will be sprayed by two head to the door acting nozzle in accordance with the requirements of water load. In case the width is more than 1 160 mm at least one extra nozzle is added.

