

# SLOVENSKI STANDARD SIST EN 14019:2004

01-september-2004

Curtain Walling - Impact resistance - Performance requirements

Vorhangfassaden - Stoßfestigkeit - Leistungsanforderungen

Façades rideaux - Résistance au choc - Prescriptions de performance

# Ta slovenski standard je istoveten z: EN 14019:2004

ICS:	<u>SIST EN 14019:2004</u> https://standards.iteh.ai/catalog/standards/sist/a59d7b0c-7749-4041-ad22- 92b72bbd2052/sist-en-14019-2004 SS:			
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#### SIST EN 14019:2004

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

### EN 14019

June 2004

ICS 91.060.10

English version

### Curtain Walling - Impact resistance - Performance requirements

Façades rideaux - Résistance au choc - Prescriptions de performance Vorhangfassaden - Stoßfestigkeit - Leistungsanforderungen

This European Standard was approved by CEN on 10 December 2003.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

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#### SIST EN 14019:2004

#### EN 14019:2004 (E)

### Contents

#### page

Forew	ord	3
1	Scope	4
2	Normative References	4
3	Terms and definitions	
4	Requirements	4
5	Impact load positions [see Figure 1]	
6		
7	Classification	5
	jraphy	-

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### Foreword

This document (EN 14019:2004) 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of an identical text or by endorsement, at the latest by December 2004, and conflicting national standards shall be withdrawn at the latest December 2004.

No existing European Standard is superseded.

This European Standard is part of a series of European Standards dedicated to curtain walling products.

This European Standard forms part of a series of curtain walling tests as defined in the product standard EN 13830.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

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#### 1 Scope

This standard defines performance requirements of curtain walling (excluding 'glass in building' which is classified under EN 12600) under soft body impact load criteria specified herein and tested in accordance with EN 13049.

Its criteria is targeted to safety in use and integrity of curtain wall in the event of sudden impact forces on the curtain wall surfaces. Compliance with the performance requirement is determined by the laboratory test.

It applies to those areas of curtain walling which face onto areas of human activity, either internally or externally and takes account of accidental impacts brought on by people going about their normal daily activities and impacts brought about by equipment and similar devices for maintenance, cleaning, repair and similar occasional activities.

It does not set out to define performance requirements of impact under exceptional circumstances such as acts of vandalism, vehicular collision, firearm projectiles, etc..

This standard will have no bearing whatsoever on any National Building / Health and Safety regulations which may exist and whose requirements shall apply separately and in parallel with these test performance requirements.

#### 2 Normative References

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at appropriate points in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these listed publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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prEN 13119, Curtain walling - Terminology.

EN 12600, Glass in building - Pendulum test - Impact test method and classification for flat glass.

EN 13049, Windows - Soft and heavy body impact - Test method, safety requirements and classification.

#### 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in prEN 13119 and the following apply.

#### component dislodgement

breaking away of any curtain wall component from the main construction, to the extent that the whole or part component falls

#### **4** Requirements

- 4.1 The curtain wall shall safely absorb the impact loads and shall retain its integrity in fulfilling the following criteria :
  - 4.1.1 no parts shall fall down;
  - 4.1.2 any holing shall not occur;
  - 4.1.3 any breakage shall not occur;

- 4.1.4 any infilling panel shall remain in its position and come off only when removed;
- 4.1.5 any permanent deformation of curtain wall component shall be accepted.
- 4.2 Glass products used as or incorporated in infill components shall be assessed in accordance with EN 12600.
- 4.3 Component dislodgement shall not result from the impact force.
- 4.4 All of the above are to apply under impact loads normal to the plane of the curtain wall.

#### 5 Impact load positions [see Figure 1]

- 1. Centre mullion height between fixings (external only).
- 2. Centre width (external, internal at sill height).
- 3. Crossing mullion and transoms.
- 4. Centre of spandrel unit.

#### 6 Test Method

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The specimen shall be tested in accordance with EN 13049, using drop heights given in Tables 1 and 2. With regards to clause 5, only one impact shall be provided for any single position.

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#### 7 Classification

The drop heights to be applied shall be selected from the performance levels given in Tables 1 and 2.

Test Class	Drop height (mm)
10	Not applicable
11	200
12	300
13	450
4	700
15	950

#### Table 1 - Internal impact classification

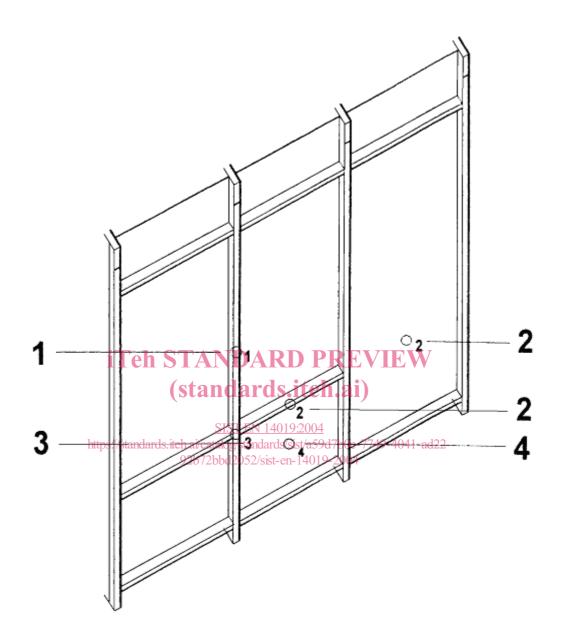
Test Class	Associated drop height (mm)
E0	Not applicable
E1	200
E2	300
E3	450
E4	700
E5	950

#### Table 2 - External impact classification

For Class 0 there is no requirement for specific resistance to impact loads and the drop height/load aspect criterion is not applicable.

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#### Key

- Centre mullion height between fixings (external only)
   Centre width (external, internal at sill height)
   Crossing mullion and transoms
   Centre of spandrel unit

Figure 1 - Illustration of impact load positions.