

KLAAS E HITUSMATERJALINA. PURUNEMISOMADUSED.  
NÕUDED JA HINDAMISMEETODID

Glass in building - Shatter properties - Requirements  
and assessment methods

## EESTI STANDARDI EESSÕNA

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English Version

## Glass in building - Shatter properties - Requirements and assessment methods

Verre dans la construction - Comportement lors du bris  
- Exigences et méthodes d'évaluation

Glas im Bauwesen - Bruchigenschaften -  
Anforderungen und Bewertungsmethoden

This European Standard was approved by CEN on 30 October 2022.

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<b>Contents</b>		Page
<b>European foreword</b> .....		3
<b>Introduction</b> .....		4
<b>1</b>	<b>Scope</b> .....	5
<b>2</b>	<b>Normative references</b> .....	5
<b>3</b>	<b>Terms and definitions</b> .....	5
<b>4</b>	<b>General</b> .....	5
<b>5</b>	<b>Method A</b> .....	6
<b>5.1</b>	<b>Dimensions and number of test specimens</b> .....	6
<b>5.2</b>	<b>Test procedure</b> .....	6
<b>5.3</b>	<b>Assessment of the shatter properties</b> .....	7
<b>5.4</b>	<b>Minimum values from the particle count</b> .....	7
<b>5.5</b>	<b>Maximum length of longest particle</b> .....	8
<b>6</b>	<b>Method B</b> .....	8
<b>6.1</b>	<b>Dimensions and number of test specimens</b> .....	8
<b>6.2</b>	<b>Test procedure</b> .....	8
<b>6.3</b>	<b>Assessment of the shatter properties</b> .....	9
<b>6.4</b>	<b>Evaluation of the shatter properties</b> .....	11
<b>7</b>	<b>Expression of results</b> .....	11
<b>Annex A (informative) Examples of particle count for Method A</b> .....		12
<b>Bibliography</b> .....		14

## European foreword

This document (EN 17635:2022) 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of an identical text or by endorsement, at the latest by May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

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 has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association.

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## Introduction

Under the former Construction Products Directive, the concept of “conformity with the standard” has made the assessment of fragmentation properties mandatory for thermally treated glass, as failing to satisfy the fragmentation test (pass/fail criterion) forbid the manufacturer to claim compliance with the relevant standard.

With the Construction Products Regulation, the concept of “conformity with the standard” doesn't exist anymore. Therefore, in order to fulfil the needs of national regulations which presuppose that this assessment is made, fragmentation properties have to be declared explicitly in the declaration of performances (DoP).

The description of the fragmentation test was in the part 1 of six product standards, five of them using the Method A and one using the method B (see bibliography, references [3] to [8]). But no reference was made to this test in the harmonized part (part 2) of the same product standard. Moreover, glass presenting specific shatter properties can be used as substrate or as component of further transformed glass products, for which the possibility to declare the shatter property was not explicitly mentioned in the respective hEN.

The aim by transferring the description of the fragmentation tests in a separate standard on shatter properties is to allow for a declaration of this characteristic in the DoP. All hENs on glass products, when revised, will make a reference to the shatter properties standard in their Clause 4, “Characteristics”. Shatter properties will be a characteristic that will be possible to declare, like any other characteristic already included in Clause 4.

The wording “shatter properties” is the one used in Mandate M/135. In order to be compliant with that Mandate, the word “fragmentation” is replaced by “shatter properties” although nothing has been modified in the description of the test methods.

## 1 Scope

This document gives test methods to assess the shatter properties of different types of monolithic flat glass for use in building and construction works, for which a specific fragmentation pattern is required when tested under defined conditions.

NOTE Thermally treated monolithic glass is a product for which such a requirement exists.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

### 3.1

#### **shatter properties**

property of a glass pane to fragment in accordance with a specified pattern when tested under defined conditions

### 3.2

#### **fragment**

any portion of a glass pane obtained after its fracture and having the same thickness as the original pane

Note 1 to entry: Glazing dust, slivers and all other smaller particles are not accounted as fragments.

### 3.3

#### **particle**

fragments with an area less than 100 mm<sup>2</sup>

### 3.4

#### **island**

fragments with an area greater than or equal to 100 mm<sup>2</sup>

## 4 General

The shatter properties of a glass can be assessed by verifying its fracture characteristics under defined conditions. This makes it possible to verify that the shatter properties are those expected for the kind of glass product, especially when a thermal treatment has been performed.

Two assessment methods are described in this document:

- Method A is used for glass expected to fracture into numerous small pieces, the edges of which are generally blunt, see Clause 5;
- Method B is used for glass expected to fracture in a manner similar to annealed glass, with defined limitations on islands and particles, see Clause 6.