INTERNATIONAL STANDARD

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Second edition
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Glass in building — Destructive-windstorm-resistant security glazing — Test and classification

Verre dans la construction — Vitrages de protection résistant aux tempêtes destructrices — Essai et classification

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

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The committee responsible for this document is ISO/TC 160, *Glass in building*, Subcommittee SC 2, *Use considerations*.

This second edition cancels and replaces the first edition (ISO 16932:2007), which has been technically revised.

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Glass in building — Destructive-windstorm-resistant security glazing — Test and classification

1 Scope

This International Standard determines resistance of security glazing products to natural threats characterized by simulated destructive-windstorm events. Classification is intended as a basis for judging the ability of glazing to remain essentially without openings during a tropical cyclone with wind speed of 50 m/s or greater. Impact by missile(s) and subsequent cyclic static-pressure differentials simulate conditions representative of windborne debris and pressures in a destructive windstorm. Glazing is tested in a standard frame. Classification is based on the potential hazard to human life using the appropriate wind speed, pressure and level of protection.

The test method determines the performance of security glazing for use in fenestration assemblies under conditions representative of events that occur in severe, destructive-windstorm environments using simulated missile impact(s) followed by the application of cyclic static-pressure differentials.

A missile-propulsion device, an air pressure system and a test chamber are used to model some conditions that can be representative of windborne debris and pressures in a windstorm environment.

The performance determined by this test method relates to the ability of glazing in the building envelope to remain without openings during a windstorm.

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2 Normative references

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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.

ISO 48, *Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD)*

3 Terms and definitions

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

3.1
security glazing
glass-based fenestration glazing products, usually transparent or translucent, intended to protect property or people from natural threats

3.2
destructive windstorm
severe weather event with high winds and turbulent gusts, such as tropical cyclones having a *basic wind speed* (3.3) equal to or greater than 50 m/s, capable of generating *windborne debris* (3.11)

3.3
basic wind speed
V
wind speed as determined by the authority having jurisdiction

Note 1 to entry: The basic wind speed is intended to represent the gust wind speed design basis for a tropical cyclone, such as used to describe a 50-year recurrence period or annual 0,02 probability of being exceeded.

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