
**Road vehicles — Safety glazing
materials — Mechanical tests**

Véhicules routiers — Vitrages de sécurité — Essais mécaniques



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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).

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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](#)

The committee responsible for this document is ISO/TC 22, *Road vehicles*, Subcommittee SC 35, *Lighting and visibility*.

This fourth edition cancels and replaces the third edition (ISO 3537:1999), which has been technically revised.

Road vehicles — Safety glazing materials — Mechanical tests

1 Scope

This International Standard specifies mechanical test methods relating to the safety requirements for all safety glazing materials in a road vehicle, whatever the type of glass or other material of which they are composed.

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.

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

ISO 3536, *Road vehicles — Safety glazing materials — Vocabulary*

ISO 15082, *Road vehicles — Tests for rigid plastic safety glazing materials*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 3536 apply.

4 Test conditions

Unless otherwise specified, the tests shall be carried out under the following conditions:

- Ambient temperature: $20\text{ °C} \pm 5\text{ °C}$;
- Atmospheric pressure: 86 kPa to 106 kPa (860 mbar to 1 060 mbar);
- Relative humidity: $(60 \pm 20)\%$.

5 Application of tests

For certain types of safety glazing materials, it is not necessary to carry out all the tests specified in this International Standard.

6 227 g ball test

Rigid plastic safety glazing materials can alternatively be tested in accordance with ISO 15082.

6.1 Principle

Determination of whether the safety glazing material has a certain minimum strength and cohesion under impact from a small hard object.

6.2 Apparatus

6.2.1 Hardness steel ball, with a mass of $227\text{ g} \pm 2\text{ g}$ and a diameter of approximately 38 mm.