



**International  
Standard**

**ISO 2958**

**Road vehicles — Exterior protection  
for passenger cars**

*Véhicules routiers — Protection extérieure des voitures  
particulières*

**Second edition  
2024-07**

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Published in Switzerland

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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 document 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](http://www.iso.org/directives)).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*.

This second edition cancels and replaces the first edition (ISO 2958:1973), which has been technically revised.

The main changes are as follows:

- added the definition of protective devices;
- modified the definition of the vehicle corner and added [Figure 2](#);
- added requirements for front and rear protective devices and their covered structures;
- added requirements for cameras and sensors installed on the front and rear protective device.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

This document was developed to define a general test for exterior protection for passenger cars. This document mainly revises ISO 2958:1973. With the advancement of technology, emerging components such as sensors, radars and cameras have been equipped with front- and rear-end protection devices for automobiles, which have caused significant changes in the car body structure and have put forward higher technical requirements for the front- and rear-end protection devices. At present, the concept and structure of the bumper device is significantly different to 1973. Therefore, this document extends the definition of the bumper and related technical requirements.

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# Road vehicles — Exterior protection for passenger cars

## 1 Scope

This document specifies the requirements and test methods for exterior protection for passenger cars. This document applies to passenger cars.

The aim is to provide protection at the front and rear of the vehicle, of certain mechanical elements and, above all, for lighting, signals, charging ports and sensors (arranged at the front and rear of the vehicle and including but not limited to those used for automatic driving system, e.g. LiDAR, radar, camera) in cases of collision at low speed.

Exterior protection is assured by protective devices, which are elements located at the front and rear ends of vehicles and designed in such a way as to allow contacts and small shocks to occur without causing any serious damage.

## 2 Normative references

The following documents are referred in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1176, *Road vehicles — Masses — Vocabulary and codes*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1176 and the following 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

#### **protective device**

element located at the front or rear end of vehicles and designed to allow collision at low speed where the vehicle is not heavily damaged

EXAMPLE Bumper cover and its fixings, foam parts, beams and connections, tail end plate, longitudinal beams and energy-absorbing components as well as other components installed on the bumper cover.

### 3.2

#### **unladen weight**

weight of the vehicle in running order, unoccupied and unladen but complete with fuel, coolant, lubricant, tools and a spare wheel (if provided as standard equipment by the vehicle manufacturer)

### 3.3

#### **laden test weight**

vehicle *unladen weight* (3.2) plus the weight of the occupants specified in [Table 1](#) (each occupant is calculated at 75 kg)