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**Pneumatic tubes for automotive  
vehicles — Technical requirements  
and test methods**

*Chambres à air pour véhicules automobiles — Exigences techniques  
et méthodes d'essai*



Reference number  
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# Contents

	Page
Foreword .....	iv
<b>1 Scope .....</b>	<b>1</b>
<b>2 Normative references .....</b>	<b>1</b>
<b>3 Terms and definitions .....</b>	<b>1</b>
<b>4 Materials, form and fit .....</b>	<b>1</b>
<b>5 Test requirements .....</b>	<b>2</b>
<b>6 Air tightness .....</b>	<b>2</b>
<b>7 Marking .....</b>	<b>3</b>
<b>8 Sampling .....</b>	<b>3</b>
<b>Annex A (normative) Preparation of dumbbell test specimen from tube .....</b>	<b>4</b>
<b>Annex B (normative) Test conditions and test procedure for set after ageing .....</b>	<b>5</b>
<b>Annex C (normative) Accelerated ageing test .....</b>	<b>6</b>
<b>Annex D (informative) Identification scheme for month and year of manufacturing (one example for the scheme of marking month and year on tube) .....</b>	<b>7</b>

## 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](http://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](http://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](#)

The committee responsible for this document is ISO/TC 31, *Tyres, rims and valves*.

# Pneumatic tubes for automotive vehicles — Technical requirements and test methods

## 1 Scope

This International Standard specifies the technical requirements and test methods for tubes of pneumatic tyres for automotive vehicles.

## 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 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*

ISO 188, *Rubber, vulcanized or thermoplastic — Accelerated ageing and heat resistance tests*

ISO 3877-3, *Tyres, valves and tubes — List of equivalent terms — Part 3: Tubes*

ISO 9413, *Tyre valves — Dimensions and designation*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 3877-3 apply.

## 4 Materials, form and fit

**4.1** The tubes shall be manufactured from an appropriate rubber compound and vulcanized to an endless annular ring shape and shall be with a valve or spud conforming to ISO 9413.

**4.2** The tubes shall be classified into the following two classes:

- a) class A – natural rubber and its derivatives and blends;
- b) class B – butyl rubber/halobutyl rubber and its derivative and blends.

**4.2.1** A blend shall be named after prime rubber whose percentage by volume is more than 60 % in the compound.

**4.3** The tube shall be uniform in thickness, free from flaws and designed to fit in a tyre of the corresponding nominal size.

### 4.3.1 Thickness uniformity

Except for the region at or near lap or splice, the thickness of the tube when measured along the longitudinal direction of the tube shall not vary from the arithmetic mean of the readings by  $\pm 17,5$  % at any point.