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**Tubeless tyres — Valves and  
components —**

**Part 1:  
Test methods**

*Pneumatiques sans chambre — Valves et composants —*

*Partie 1: Méthodes d'essai*



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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 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)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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*, Subcommittee SC 9, *Valves for tube and tubeless tyres*.

This first edition of ISO 14960-1, together with ISO 14960-2, cancels and replaces ISO 14960:2004, which has been technically revised.

ISO 14960 consists of the following parts, under the general title *Tubeless tyres — Valves and components*:

- *Part 1: Test methods*
- *Part 2: Clamp-in tubeless tyre valve-test method*

# Tubeless tyres — Valves and components —

## Part 1: Test methods

### 1 Scope

This part of ISO 14960 specifies test methods for snap-in tubeless tyre valves intended for, but are not limited to, highway applications.

### 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 3877-2, *Tyres, valves and tubes — List of equivalent terms — Part 2: Tyre valves*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 3877-2 and the following apply.

#### 3.1

##### **snap-in valve**

tyre valve having a rigid housing adhered to a resilient body designed to retain and seal the valve in the rim hole

### 4 Methods for testing tubeless tyres snap-in valves

#### 4.1 Description of a snap-in valve

A snap-in valve is a unit free of rubber in the air passage, no rubber or cement above the second thread on the housing, and without flow cracks, blisters, voids, or other moulding defects. The mould parting line flash should not exceed 1,3 mm in height and 0,15 mm thickness at the outer edge.

#### 4.2 Test fixtures

Break both edges on both sides of the valve hole either by a 45° chamfer or a radius from 0,3 mm to 0,4 mm. Emery cloth or suitable tooling is recommended. It is recommended that material of the test fixture be representative of the material of the actual rim.

The primary external seal of a “snap-in” valve in a valve hole is obtained from the rubber compression of the valve body onto the internal surface of the valve hole. Secondary external sealing may be present by the contact of the remainder of the valve body exterior to the surface of the material around the valve hole. Either of both of these seals can be affected by the compound curvatures in the wheel rims and by stock thickness. See [Table 1](#).