# INTERNATIONAL STANDARD

ISO 4709

Third edition 2017-10

# Composition cork — Gasket material — Classification system, requirements, sampling, packaging and marking

Aggloméré composé de liège — Matériau pour joints pour industries mécaniques — Système de classification, exigences, échantillonnage, emballage et marquage

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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 <a href="www.iso.org/directives">www.iso.org/directives</a>).

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 <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

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 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 the following URL: <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

This document was prepared by Technical Committee ISO/TC 87, Cork.

This third edition cancels and replaces the second edition (ISO 4709:2000), which has been technically revised.

The main changes compared to the previous edition are as follows: <u>Clause 5</u> and <u>Table 1</u> have been technically revised.

## Composition cork — Gasket material — Classification system, requirements, sampling, packaging and marking

#### 1 Scope

This document gives a classification system for composition cork intended to be used as gaskets in the mechanical industry. It provides a means for specifying or describing the relevant properties.

Since not all properties that contribute to gasket performance are included, the use of this system is limited to the selection of materials in accordance with specified requirements.

#### 2 Normative references

The following documents are referred to 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 633, Cork — Vocabulary

ISO 4708, Composition cork — Gasket material — Test methods

ISO 7322, Composition cork — Test methods

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#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 633 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <a href="https://www.iso.org/obp">https://www.iso.org/obp</a>
- IEC Electropedia: available at <a href="http://www.electropedia.org/">http://www.electropedia.org/</a>

#### 4 Basis of classification

#### 4.1 General

- **4.1.1** The classification system outlined in this document is intended to encourage uniformity in reporting properties, to provide a common language between suppliers and consumers, and to guide designers and engineers in stipulating specifications based on common test methods for commercially available materials.
- **4.1.2** This classification system is versatile enough to also cover new materials and test methods as they are introduced. It is based on the principle that non-metallic gasket materials should be described, as far as possible, in terms of specific physical and mechanical properties and that an infinite number of such descriptions can be formulated by using one or more statements, based on tests.
- **4.1.3** Users of gasket materials may, by selecting different combinations of different statements, specify different combinations of desired properties. Suppliers may, likewise, report properties available in their respective products.

#### 4.2 Significance of the system

- **4.2.1** This classification system establishes letter or number symbols or both ("line call-out") for various performance levels of each property or characteristic (see <u>Clause 5</u>).
- **4.2.2** Various levels of specification or description can be established by increasing or decreasing the number of letter-numeral symbols used in the "line call-out".
- **4.2.3** The specification or description of gasket materials, in this system, shall include a reference to this document followed by six numerals, e.g. ISO 4709, (220304).
- **4.2.4** Each numeral represents one characteristic (see <u>Clause 5</u>).
- **4.2.5** The numeral "0" is used when the description of any characteristic is not desired.
- **4.2.6** The numeral "9" is used when the description of any characteristic is specified by some supplement to this classification system, such as engineering drawings.
- **4.2.7** To specify or describe gasket materials further, each "line call-out" can include one or more suffix letter-numeral symbols (see <u>Table 1</u>).

### 5 Description of the system iTeh Standards

### 5.1 Basic characteristics ttps://standards.iteh.ai)

- **5.1.1** The first numeral in the "line call-out" is related to the type of raw material that is the base of the gasket material; for cork products the number 2 shall be used.
- **5.1.2** When the first numeral is 2, the second numeral in the "line call-out" can assume the following figures (related to the type of agglomerate):
- 0 not specified
- 1 composition cork
- 2 cork and elastomeric
- 3 cork and cellular rubber
- 9 as specified
- **5.1.3** The third numeral is related to the compressibility characteristics of the agglomerated cork, expressed as a percentage and determined in accordance with ISO 4708:

0	not specified	5	from 20 % to 30 %
1	from 0 % to 10 %	6	from 25 % to 40 %
2	from 5 % to 7 %	7	from 30 % to 50 %
3	from 10 % to 20 %	8	from 40 % to 60 %
4	from 15 % to 25 %	9	as specified