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# International Standard



# 4709

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Cork — Composition cork gasket material — Specifications

*Liège — Aggloméré composé pour joints pour industries mécaniques — Spécifications*

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**Ref. No. ISO 4709-1985 (E)**

**Descriptors :** cork, agglomerates, specifications, dimensional tolerances, designation, sampling, packing.

## 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7386 was prepared by Technical Committee ISO/TC 87, Cork.

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# Cork — Composition cork gasket material — Specifications

## 1 Scope

This International Standard specifies characteristics of composition cork material intended to be used as gaskets in mechanical industries.

## 2 Field of application

This International Standard applies to composition cork sheets, slabs or frames obtained by pressure with granulated cork protein or resin bonded, with or without rise of temperature.

## 3 References

ISO 2859, *Sampling procedures and tables for inspection by attributes.*

ISO 4708, *Cork — Composition cork gasket material — Test methods.*<sup>1)</sup>

## 4 Thickness

The tolerances on nominal thickness of sheets, slabs or frames measured in accordance with ISO 4708 are

- ± 0,13 mm on nominal thickness ≤ 1 mm;
- ± 0,25 mm on nominal thickness > 1 mm and ≤ 3 mm;
- ± 0,30 mm on nominal thickness > 3 mm and ≤ 6 mm;
- ± 5 % on nominal thickness > 6 mm and never more than 0,40 mm.

Tolerances may also be established by agreement between purchaser and supplier.

## 5 Designation

The composition cork gasket material shall be identified by

— the type of bonding, using the symbol P for the protein glue and the symbol R for the resin glue;

— the apparent density, using

the symbol 22 for  $220 \text{ kg/m}^3 \leq \rho < 270 \text{ kg/m}^3$

the symbol 27 for  $270 \text{ kg/m}^3 \leq \rho < 320 \text{ kg/m}^3$

the symbol 32 for  $320 \text{ kg/m}^3 \leq \rho < 380 \text{ kg/m}^3$

the symbol 38 for  $\rho \geq 380 \text{ kg/m}^3$

Examples :

P 32 — sheets, slabs or frames of composition cork, having as binder a protein glue and apparent density  $320 \text{ kg/m}^3 \leq \rho < 380 \text{ kg/m}^3$ ;

R 27 — sheets, slabs or frames of composition cork, having as binder a resin glue and apparent density  $270 \text{ kg/m}^3 \leq \rho < 320 \text{ kg/m}^3$ .

## 6 Specifications

Sheets, slabs or frames for composition cork gasket material tested according to ISO 4708 shall have the specifications given in the table.

The same specifications shall apply to sheets or boards with bonded seams.

1) At present at the stage of draft.

Table – Specifications

Specifications	Type	Protein bond				Resin bond			
	Grade	P22	P27	P32	P38	R22	R27	R32	R38
Apparent density, kg/m <sup>3</sup>	min.	220	270	320	380	220	270	320	380
Tensile strength, MPa	min.	0,40	0,55	0,70	0,85	0,40	0,55	0,70	0,85
Compressibility, %	min.	30 to 50	20 to 40	15 to 30	10 to 25	30 to 50	20 to 40	15 to 30	10 to 25
Recovery, %	min.	65	75	75	75	65	75	75	75
Dimensional change, %	max.	2,5	2,5	2,5	2,5	1,5	1,5	1,5	1,5
Flexibility	There shall be no breakage <sup>1)</sup>								
Fluid resistance (water, oil and fuel)	There shall be no disintegration <sup>2)</sup>								

## 7 Sampling

Take 1 % of sheets from each package with a minimum of 1 unit or 0,5 m<sup>2</sup> and according to ISO 2859.

Pallets may be used, provided that they are provided with the same protection.

The quantity, thickness and designation of the material shall be shown on the outside of each package and no package shall contain more than one thickness.

## 8 Packing

The material shall be packed in moisture-resistant packages with a shape assuring transportation without deterioration.

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1) The absence of breakage shall imply no breakage throughout the granules of cork or separation of the granules.

2) A test piece is said to disintegrate if it cracks open and/or if it shows substantial separation of particles during the test.