
**Rubber, vulcanized — Preformed joint
seals for use between concrete paving
sections of highways — Specification**

*Caoutchouc vulcanisé — Joints d'étanchéité préformés utilisés entre les
dalles en béton des routes — Spécifications*

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 4635 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 4, *Products (other than hoses)*.

This second edition cancels and replaces the first edition (ISO 4635:1982), which has been technically revised.

The main modifications are as follows:

- The hardness classes have been changed from IRHD 55, IRHD 60, IRHD 65 and IRHD 70 to IRHD 40, IRHD 50, IRHD 60, IRHD 70 and IRHD 80. Hardness tolerances have been added. Requirements have been added for compression set at low temperature, stress relaxation in compression and protection against over-extension.
- Clauses have been included on functional testing for cold climates, the effect of water, and marking, labelling and packaging.
- The requirements for recovery at low and elevated temperatures have been changed. In addition, the ozone resistance is now measured only under normal conditions (50 pphm ozone) and not under the alternative severe conditions (200 pphm ozone).
- The temperature at which the compression set at elevated temperature is measured has been changed from 100 °C to 70 °C.

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CAUTION — Manufacturers shall ensure that emissions from their products of substances which could be hazardous to health or to the environment are not in excess of the legally permitted level in the country of use.

1 Scope

This International Standard specifies requirements for material for preformed vulcanized rubber joint seals used between concrete paving sections of highways.

It is applicable to seals for joints in new concrete highways as well as to maintenance work on such highways.

It does not cover the design or dimensions of seals, but general requirements for finished seals are given.

NOTE This International Standard is based on experience with chloroprene (CR) rubber and ethylene-propylene-diene monomer (EPDM) rubber.

2 Normative references

The following referenced documents are indispensable for the application 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 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*

ISO 48:2010, *Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD)*

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

ISO 815-1:2008, *Rubber, vulcanized or thermoplastic — Determination of compression set — Part 1: At ambient or elevated temperatures*

ISO 815-2:2008, *Rubber, vulcanized or thermoplastic — Determination of compression set — Part 2: At low temperatures*

ISO 1431-1, *Rubber, vulcanized or thermoplastic — Resistance to ozone cracking — Part 1: Static and dynamic strain testing*

ISO 1817, *Rubber, vulcanized — Determination of the effect of liquids*

ISO 2230, *Rubber products — Guidelines for storage*

ISO 2285, *Rubber, vulcanized or thermoplastic — Determination of tension set under constant elongation, and of tension set, elongation and creep under constant tensile load*

ISO 3302-1:1996, *Rubber — Tolerances for products — Part 1: Dimensional tolerances*