

International Standard



7632

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

Road vehicles — Elastomeric seals for hydraulic disc brake cylinders using a petroleum base hydraulic brake fluid (service temperature 120 °C max.)

Véhicules routiers — Joints en caoutchouc pour cylindres de freins hydrauliques à disque utilisant un liquide de frein à base pétrolière (température maximale d'utilisation 120 °C)

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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.

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 7632 was prepared by Technical Committee ISO/TC 22, *Road vehicles*.

Road vehicles — Elastomeric seals for hydraulic disc brake cylinders using a petroleum base hydraulic brake fluid (service temperature 120 °C max.)

1 Scope

This International Standard specifies the performance test methods and requirements for elastomeric seals used in road vehicle disc brake cylinders, for use with petroleum base brake fluid.

2 Field of application

This International Standard applies to solid section type seals (square, rectangular, O-ring) mounted stationary in the cylinder bore or on the movable piston of disc brakes.

These elastomeric seals shall be suitable for operation in a temperature range of -40 to $+120$ °C.

3 References

ISO 48, *Vulcanized rubbers — Determination of hardness (Hardness between 30 and 85 IRHD)*.

ISO 188, *Rubber, vulcanized — Accelerated ageing or heat-resistance tests*.

ISO 1817, *Vulcanized rubber — Determination of the effect of liquids*.

ISO 7309, *Road vehicles — Hydraulic braking systems — ISO Reference petroleum base fluid*.

ISO 7631, *Road vehicles — Elastomeric cups and seals for cylinders for hydraulic braking systems using a petroleum base hydraulic brake fluid (service temperature 120 °C max.)*.

4 Product requirement

4.1 Quality and finish

Seals shall be free of blisters, pin-holes, cracks, embedded foreign material, or other physical defects, and shall conform to the dimensions specified on the drawings.

4.2 Marking

4.2.1 Each seal shall bear a green mark specifying that it refers to a category of seals for use with a petroleum base brake fluid.

4.2.2 The identification green mark can be ink or tinted elastomer.

4.2.3 The place and type of green mark shall be the subject of an agreement between buyer and seller.

4.2.4 The green mark shall entail neither extra thickness nor alteration of material characteristics; it shall remain during all handling, before bringing the seal into use.

5 Brake test fluid

The test fluid shall be the reference fluid as defined in ISO 7309.

6 Apparatus

6.1 Resistance to fluid at elevated temperature, physical stability and precipitation characteristics

6.1.1 **Oven**, uniformly heated, dry air type conforming to the requirements of ISO 188.

6.1.2 **Test jar**, screw-top, straight-sided, round glass type, having a capacity of 250 ± 10 ml and inner dimensions of approximately 125 mm height and 50 mm diameter, with a tinned steel lid (no insert or organic coating).

6.2 High temperature stroking test

Apparatus as illustrated in figure 1 with oven in accordance with 6.1.1.

6.3 Low temperature leakage test

Apparatus as illustrated in figure 2.

