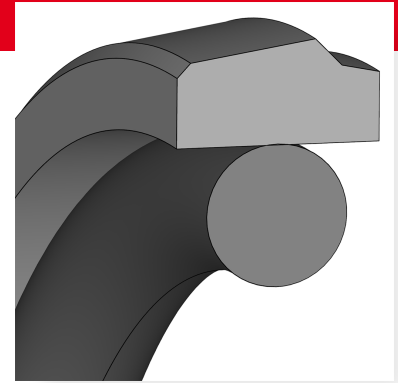




DICHTOMATIK

Piston seal KPOR31

DESCRIPTION

- Asymmetrical
- Single acting
- O-ring as sealing and preloading element
- Tight fit on inner diameter

FUNCTION

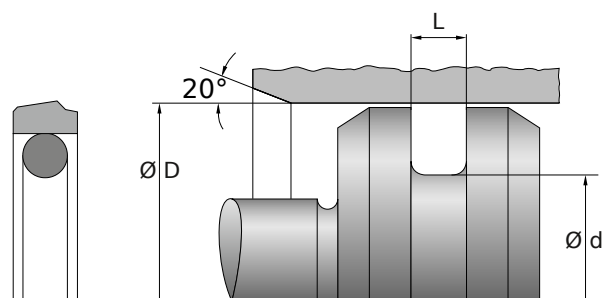
- Sealing of pistons
- Use with one-sided pressure load

APPLICATIONS

- Mobile hydraulics
- Stationary hydraulics

CONFORMITY AND CERTIFICATES

- Please consult the material data sheet valid for the respective material for current information on approvals and certificates, as this information depends on the compound and cannot be listed exhaustively here.



PRODUCT ADVANTAGES

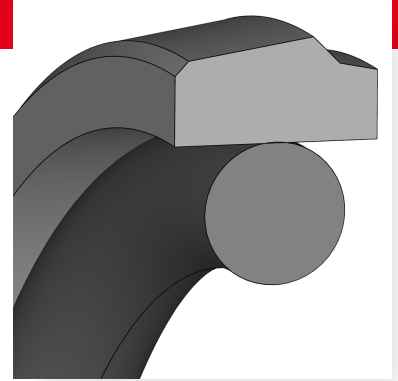
- Tolerance of higher surface roughness in the groove base
- Low friction even at low speed
- High wear resistance
- High extrusion reliability
- Reliable design with broad application spectrum for moderately demanding applications in general industry
- Optimum force flow to the sealing edge via profile ring
- Suitable for high-temperature applications
- No stick-slip effect
- Good price/performance ratio
- Manufactured by certified external suppliers
- Suitable for dry running and deficient lubrication
- Reverse flow of fluid film (adapted sealing edge geometry)

DESIGN GUIDELINE

- Installation space cleaned and free of deposits or old packing rings
- Please refer to the technical manual for design guidelines.
- Surface roughness of the groove flanks $Ra \leq 3 \mu m$
- With pulsating pressures, hardness of the o-ring should not be less than 80 Shore A
- Counterface surface roughness $Ra \leq 2 \mu m$



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Piston seal KPOR31

INSTALLATION GUIDELINE

- Axially accessible installation space required for small diameters
- Semi-open or closed installation spaces possible for a limited dimensional range
- Deburr sharp edges, provide with seamless chamfers and radii
- Clean the installation space carefully before installation, remove dust, dirt, metal chips, etc.
- Do not pull the seal over sharp edges, threads, or keyways during installation; cover with an installation sleeve if necessary
- When installing in closed installation spaces, heat the PTFE part in advance so that the seal can be installed quickly and easily by forming it into a kidney shape
- The seal must not be kinked during installation
- Grease the piston seal before fitting the cylinder
- Do not roll the O-ring over the mounting surfaces, do not twist it when snapping into the groove
- Calibrate at the end

STORAGE ADVISE

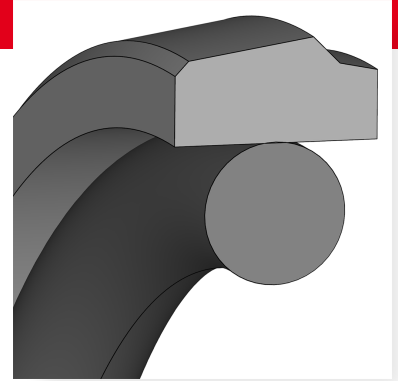
- Storage temperature <25°C
- No direct heat sources
- No direct sunlight
- No condensation in the storage room
- No exposure to ozone or ionizing radiation
- Recommendations based on the revision of ISO 2230 dated 16.09.1992



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FREUDENBERG
SEALING TECHNOLOGIES



Piston seal KPOR31

Pressure [MPa]

PTFE

40

Sliding speed [m/s]

PTFE

15

Temperature [°C]

PTFE

-30...100

The values given are based on a limited number of tests on standard test specimens (2 mm sample plates) from laboratory production. The data determined from finished parts may deviate from the above values depending on the manufacturing process and the part geometry.

The information provided herein is based on laboratory tests and on data sources deemed reliable. It constitutes general, non-binding guideline values and does not represent any guarantee of specific properties or suitability for a particular purpose. The suitability of a product for a specific application depends on the actual operating conditions and a variety of factors. Full testing and performance evaluation of the final product are the responsibility of the user. Freudenberg FST GmbH | www.fst.com