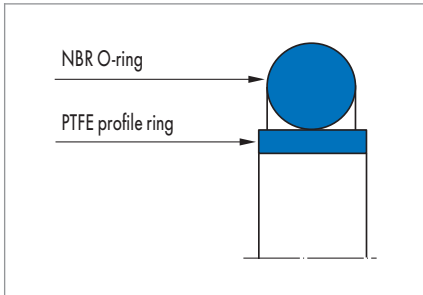


Merkel Compact Seal TFMI



Product description

Two-piece Merkel compact seal consisting of profile ring and O-ring as a pre-load component.

Product advantages

Rod seal for lower pressure range with properties of

- Low friction
- Low housing height

Material

Profile ring

Material	Code	Hardness
PTFE bronze compound	PTFE 177023	–

O-ring

Material	Code	Hardness
Nitrile rubber NBR	NBR	70 Shore A

Operating conditions

Pressure p	16 MPa
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Running speed v	2 m/s
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Medium/ Temperature	PTFE 177023/NBR
Hydraulic oils HL, HLP	–30 °C ... +100 °C
HFA fluids	–
HFB fluids	–
HFC fluids	–
HFD fluids	–
Water	–
HETG (rapeseed oil)	–30 °C ... +80 °C
HEES (synthetic ester)	–
HEPG (glycol)	–30 °C ... +60 °C
Mineral greases	–30 °C ... +100 °C

Design notes

Please observe our general design notes in → Technical Manual.

Surface quality

Peak-to-valley heights	R_a	R_{max}
Sliding surface	0,05 ... 0,3 μm	$\leq 2,5 \mu\text{m}$
Groove base	$\leq 1,6 \mu\text{m}$	$\leq 6,3 \mu\text{m}$
Groove flanks	$\leq 3,0 \mu\text{m}$	$\leq 15,0 \mu\text{m}$

Percentage contact area M_r >50% up to max. 90% at cutting depth $c = R_z/2$ and reference line $C_{ref} = 0\%$.

Admissible gap dimension

The decisive factor for the function of the seal is the largest gap dimension occurring during operation on the non-pressurised side of the seal. → Technical Manual. We recommend a metal guide H8/f7.

Fitting & installation

Careful fitting is a prerequisite for the correct function of the seal. → Technical Manual.