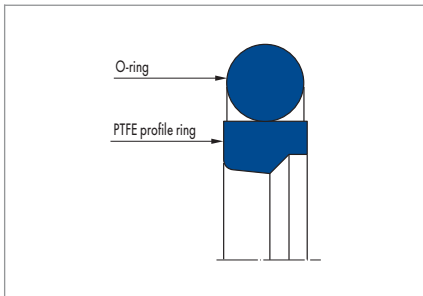


MERKEL OMEGAT OMS-MR



PRODUCT DESCRIPTION

Two-piece Merkel seal set made of PTFE profile ring with one O-ring as a pre-load component.

PRODUCT ADVANTAGES

Rod seal used in particular in a sealing system.

- Very high resistance to pressure
- Good thermal conductivity
- Very good extrusion resistance
- High resistance to abrasion
- Low friction, free of stick-slip

APPLICATION

- Industrial vehicles
- Handling equipment
- Agricultural machinery
- Cranes
- Presses
- Marine hydraulics
- Injection moulding machines
- Control and regulation equipment
- Rolling mills

MATERIAL

PTFE profile ring

Material	Code	Hardness
PTFE bronze compound	PTFE B602	-
PTFE glass MoS2 compound	PTFE GM201	-

O-ring

Material	Code	Hardness
NBR	70 NBR B276	70 Shore A
FKM	70 FKM K655	70 Shore A

OPERATING CONDITIONS

Pressure p	40 MPa
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Running speed v	5 m/s
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Medium/ Temperature	PTFE B602/70 FKM K655	PTFE B602/70 NBR B276	PTFE GM201/ NBR
Hydraulic oils HL, HLP	-10 °C ... +200 °C	-30 °C ... +100 °C	-30 °C ... +100 °C
HFA fluids	-	-	+5 °C ... +60 °C
HFB fluids	-	-	+5 °C ... +60 °C
HFC fluids	-	-	-30 °C ... +60 °C
HFD fluids	-10 °C ... +200 °C	-	-
Water	-	-	+5 °C ... +100 °C
HETG (rapeseed oil)	-10 °C ... +80 °C	-30 °C ... +80 °C	-30 °C ... +80 °C
HEES (synthetic ester)	-10 °C ... +100 °C	-30 °C ... +80 °C	-30 °C ... +60 °C
HEPG (glycol)	-10 °C ... +80 °C	-30 °C ... +60 °C	-30 °C ... +60 °C
Mineral greases	-10 °C ... +200 °C	-30 °C ... +100 °C	-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	≤2,5 µm
Groove base	≤1,6 µm	≤6,3 µm
Groove flanks	≤3,0 µm	≤15,0 µm

Percentage contact area M_r >50% up to max. 90% at cutting depth c = Rz/2 and reference line C ref = 0%.

Admissible gap dimension

Profile dimension	16 MPa	26 MPa	32 MPa	40 MPa
2,45 mm	0,35 mm	0,30 mm	-	-
3,65 mm	0,40 mm	0,35 mm	-	-
5,35 mm	0,50 mm	0,40 mm	0,30 mm	-
7,55 mm	0,55 mm	0,45 mm	0,35 mm	0,30 mm
10,25 mm	0,60 mm	0,50 mm	0,40 mm	0,40 mm
12,00 mm	0,70 mm	0,60 mm	0,55 mm	0,50 mm
13,65 mm	0,75 mm	0,65 mm	0,60 mm	0,55 mm

Tolerances

Nominal Ø d	D
≤500 mm	H8
>500 mm	H7

FITTING & INSTALLATION

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