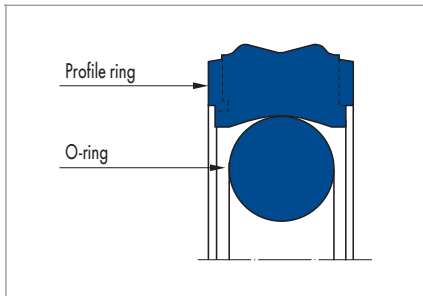


MERKEL OMEGAT OMK-PU



PRODUCT DESCRIPTION

Two-piece Merkel piston seal set comprising one polyurethane profile ring with one O-ring as a pre-load component.

PRODUCT ADVANTAGES

Merkel Omegat OMK-PU is used for sealing pistons with pressure on both sides for medium duty applications, and is also designed for housings according to ISO 7425 , Part 1.

- Increased sealing effect
- Robust design
- Requires small housing
- Easy fitting

APPLICATION

- Industrial vehicles
- Agricultural machinery
- Cranes
- Standard cylinders

MATERIAL

Profile ring

Material	Code	Hardness
Polyurethane	95 AU V142	95 Shore A

Elastomer profile ring

Material	Code	Hardness
Nitrile rubber	70 NBR B276	70 Shore A

Other combinations of materials are available on enquiry.

OPERATING CONDITIONS

Pressure p	25 MPa
Running speed v	0,5 m/s

Medium/ Temperature	95 AU V142/70 NBR B276
Hydraulic oils HL, HLP	-30 °C ... +100 °C
HFA fluids	+5 °C ... +50 °C
HFB fluids	+5 °C ... +50 °C
HFC fluids	-30 °C ... +40 °C
HFD fluids	-
Water	+5 °C ... +50 °C
HETG (rapeseed oil)	-30 °C ... +60 °C
HEES (synthetic ester)	-30 °C ... +80 °C
HEPG (glycol)	-30 °C ... +50 °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	≤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% to max. 90% at cutting depth c = Rz/2 and reference line C ref = 0%.

Admissible gap dimension

BR	16 MPa	26 MPa
60 °C	0,50 mm	0,35 mm
80 °C	0,40 mm	0,24 mm

Tolerances

The admissible gap width, tolerances, guide play and deflection of the guide under load are to be taken into account when designing d2. → Technical Manual.

D	d
H8	h7

FITTING & INSTALLATION

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