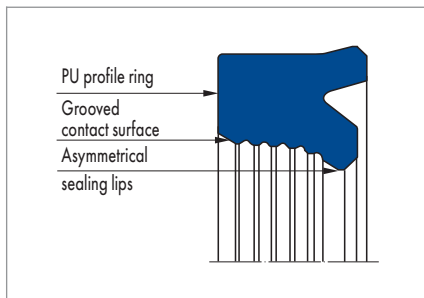


MERKEL U-RING LF 300



PRODUCT DESCRIPTION

Merkel U-ring with asymmetrical profile, inner lip set back, grooved contact surface on the inside diameter as well as press fit at the outside diameter.

PRODUCT ADVANTAGES

Single-acting rod seal for standardised housings, amongst others, according to ISO 5597.

- Very good static and dynamic tightness
- Low friction, smooth movement even at low running speeds, dynamic deformation value
- Use as an individual seal or secondary seal in sealing systems possible

APPLICATION

- Earth moving equipment
- Industrial vehicles
- Loading platforms
- Agricultural machinery
- Cranes
- Injection moulding machines

MATERIAL

Material	Code	Hardness
Polyurethane	92 AU 21100	92 Shore A
Polyurethane	94 AU 925	94 Shore A

OPERATING CONDITIONS

Pressure p	32 MPa
Running speed v	0,6 m/s

Medium/ Temperature	92 AU 21100	94 AU 925
Hydraulic oils HL, HLP	-40 °C ... +100 °C	-30 °C ... +110 °C
HFA fluids	+5 °C ... +50 °C	+5 °C ... +50 °C
HFB fluids	+5 °C ... +50 °C	+5 °C ... +50 °C
HFC fluids	-40 °C ... +40 °C	-30 °C ... +40 °C
HFD fluids	–	–
Water	+5 °C ... +40 °C	+5 °C ... +40 °C
HETG (rapeseed oil)	+40 °C ... +60 °C	-30 °C ... +60 °C
HEES (synthetic ester)	-40 °C ... +80 °C	-30 °C ... +60 °C
HEPG (glycol)	-40 °C ... +40 °C	-30 °C ... +40 °C
Mineral greases	-40 °C ... +100 °C	-30 °C ... +110 °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

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.

Profile dimension	16 MPa	26 MPa	32 MPa
>4,0 mm ... ≤5,0 mm	0,50 mm	0,40 mm	0,35 mm
>5,0 mm ... ≤7,5 mm	0,55 mm	0,45 mm	0,40 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.

Nominal Ø d	D	d
≤180 mm	H11	f8

FITTING & INSTALLATION

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