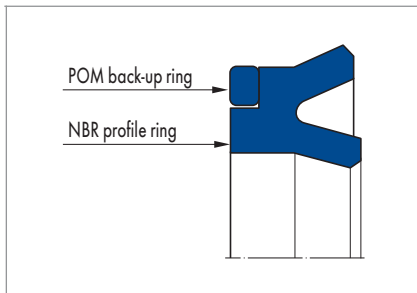


## MERKEL U-RING NA 250



### PRODUCT DESCRIPTION

Merkel U-ring with asymmetrical profile of the sealing lips and back-up ring as a gap sealing component.

### PRODUCT ADVANTAGES

Single-acting piston seal for medium load, preferably for spare parts requirement.

### APPLICATION

- Excavators
- Earth moving equipment
- Forestry equipment
- Standard cylinders

### MATERIAL

Sealing component

Material	Code	Hardness
Nitrile rubber NBR	80 NBR 878	80 Shore A

Back-up ring

Material	Code	Hardness
Polyacetal	POM 992020	–

### OPERATING CONDITIONS

Pressure p	25 MPa
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Running speed v	0,5 m/s
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Medium/ Temperature	80 NBR 878/POM
Hydraulic oils HL, HLP	-30 °C ... +100 °C
HFA fluids	+5 °C ... +60 °C
HFB fluids	+5 °C ... +60 °C
HFC fluids	-30 °C ... +60 °C
HFD fluids	–
Water	+5 °C ... +90 °C
HETG (rapeseed oil)	-30 °C ... +80 °C

Medium/ Temperature	80 NBR 878/POM
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 <sub>a</sub>	R <sub>max</sub>
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, >50% to max. 90% at cutting depth c = Rz/2 and reference line C ref = 0%.

Admissible gap dimension

The largest gap dimension occurring on the non-pressurised side of the seal in operation is of vital importance for the function of the seal. → Technical Manual.

d (D)	7,5 MPa	10,0 MPa	25,0 MPa
≤ 80 mm	0,95 mm	0,80 mm	0,60 mm
> 80 mm	1,00 mm	0,85 mm	0,65 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	h11

### FITTING & INSTALLATION

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