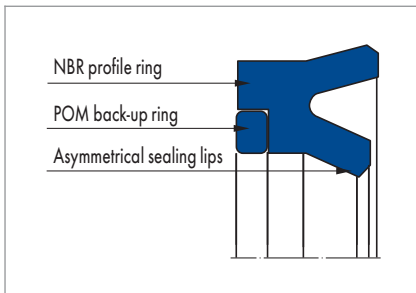


## MERKEL U-RING NI 250



### 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 rod seal for medium loads, predominantly for spare parts requirements.

### APPLICATION

- Excavators
- Earth moving equipment
- Forestry equipment
- Special 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
Running speed v	0,5 m/s

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
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<sub>p</sub> >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.

d (D)	7,5 MPa	10 MPa	25 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
≤120 mm	H11	f8