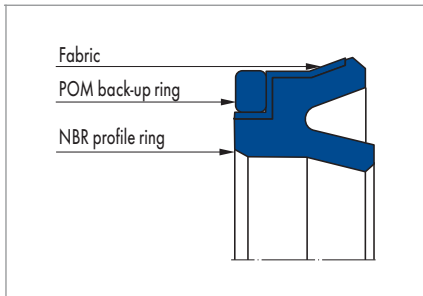


MERKEL U-RING NA 400



PRODUCT DESCRIPTION

Merkel U-ring with asymmetrical profile of the sealing lips, fabric reinforcement on the dynamic sealing side and back-up ring as a gap sealing component.

PRODUCT ADVANTAGES

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

APPLICATION

- Earth moving equipment
- Industrial vehicles
- Mobile hydraulics
- Presses

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	40 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	-

Medium/ Temperature	80 NBR 878/POM
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_a	R_{max}
Sliding surface	0,05 ... 0,3 μm	$\leq 2,5 \mu\text{m}$
Groove base	$\leq 1,6 \mu\text{m}$	$\leq 6,3 \mu\text{m}$
Groove flanks	$\leq 3,0 \mu\text{m}$	$\leq 15,0 \mu\text{m}$

Percentage contact area $M_r > 50\%$ to max. 90% at cutting depth $c = Rz/2$ and reference line $C_{ref} = 0\%$.

Admissible gap dimension

d (D)	16 MPa	26 MPa	32 MPa	40 MPa
\leq	0,60 mm	0,50 mm	0,40 mm	0,35 mm
$>$	0,65 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 $\varnothing D$	D	d
$\leq 320 \text{ mm}$	H11	h11

FITTING & INSTALLATION

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