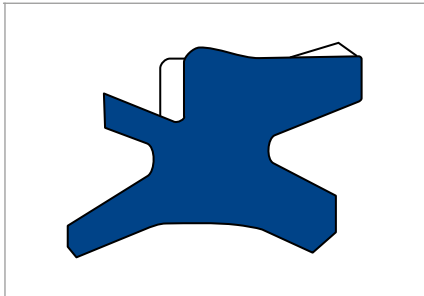


MERKEL DOUBLE WIPER PRW 1



PRODUCT DESCRIPTION

Merkel Double Wiper PRW 1 with integrated pressure-relief function and special sealing and wiping edge geometry.

PRODUCT ADVANTAGES

Double wiper for housings based on ISO 6195 Type A.

- No pressure build-up between wiper and rod seal due to integrated pressure relief (patented).
- Improved sealing of overall system due to dynamic sealing lip with punched sealing edge.
- Wiping lip has outstanding wiping action against dirt
- Static sealing lip for additional protection against ingress of dirt and water

APPLICATION

- Earth moving equipment
- Industrial vehicles
- Loading platforms
- Agricultural machinery
- Cranes
- Support cylinders

MATERIAL

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

OPERATING CONDITIONS

Running speed v	1,0 m/s
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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	$\leq 2,5 \mu\text{m}$
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 $M_r > 50\%$ up to max. 90% at cutting depth $c = R_z/2$ and reference line $C_{ref} = 0\%$.

Admissible gap dimension

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

Tolerances

Nominal $\varnothing d$	D	d
≤ 180 mm	H11	f8

The tolerance for the $\varnothing d$ is defined by the buffer seal.

FITTING & INSTALLATION

Careful fitting is a prerequisite for the correct function of the Merkel Double Wiper PRW 1. Generally, wipers can be quickly and easily fitted by deforming into a kidney shape. → Technical Manual