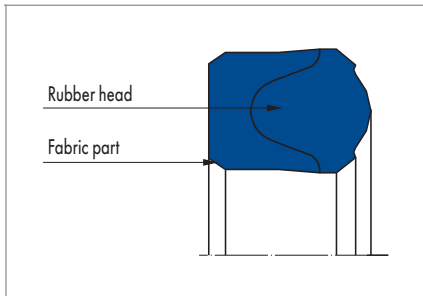


# MERKEL COMPACT SEAL S 8



## PRODUCT DESCRIPTION

Single-piece rod seal with a rubber head set in the fabric part.

## PRODUCT ADVANTAGES

Compact rod seal, also for standardised housings according to ISO 5597.

- Easy to fit
- Excellent sealing effect also in the lower pressure range
- Low friction due to the fabric part

## APPLICATION

- Standard cylinders
- Machine tools
- Telescopic cylinders
- Spindle seals

## MATERIAL

Material	Code	Hardness
Nitrile rubber NBR	70 NBR B209	70 Shore A

## OPERATING CONDITIONS

Pressure p	25 MPa
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Running speed v	0,5 m/s
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Medium/ Temperature	70 NBR B209
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 ... +100 °C
HETG (rapeseed oil)	-30 °C ... +80 °C
HEES (synthetic ester)	-30 °C ... +80 °C
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 $\mu\text{m}$	$\leq 2,5 \mu\text{m}$
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

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. In the case of larger gap dimensions than specified in the table full-surface back-up ring of plastic should be used behind the seal.

Profile dimension	16 MPa	25 MPa
$\leq 3,50 \text{ mm} \dots \leq 15 \text{ mm}$	0,20 mm	0,10 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
$\leq 120 \text{ mm}$	H11	f8
$>120 \dots 340 \text{ mm}$	H11	f7

### Fittings for metallic guides

Nominal $\varnothing d$	D	d
$\leq 80 \text{ mm}$	H11	H9/f8
$>80 \dots 120 \text{ mm}$	H11	H8/f8
$>120 \dots 340 \text{ mm}$	H11	H8/f7

## FITTING & INSTALLATION

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