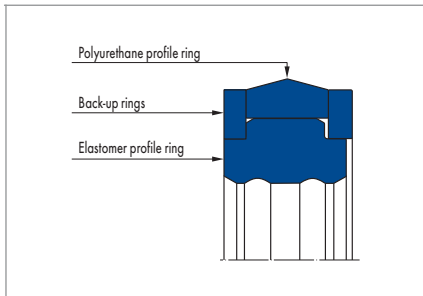


MERKEL COMPACT SEAL T 42



PRODUCT DESCRIPTION

Double-acting Merkel Compact Seal T 42 with back-up rings.

PRODUCT ADVANTAGES

Merkel Compact Seal T 42 for sealing pistons which can be pressurised on both sides in plungers, pushers and subsidiary cylinders in self-advancing support systems.

- Very good protection against extrusion even with pressure peaks
- High resistance to abrasion
- High contact pressure due to rubber profile ring

APPLICATION

- Mining

MATERIAL

Polyurethane profile ring

Material	Code	Hardness
Polyurethane	93 AU V167	93 Shore A

Back-up rings

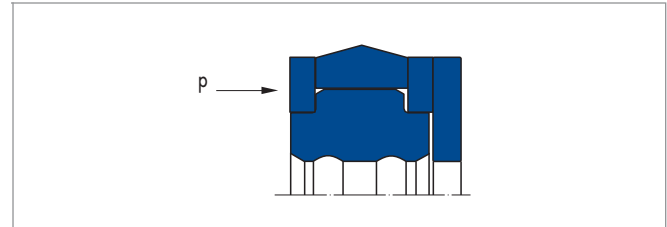
Material	Code	Hardness
Polyacetal	POM PO202	–

Elastomer profile ring

Material	Code	Hardness
Nitrile rubber	85 NBR B203/ 80 NBR B246	85/80 Shore A

OPERATING CONDITIONS

Pressure p	50 MPa
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* If a full-surface back-up ring is used on the side not subjected to high pressure, the use of up to 150 MPa is possible. The height of the backup-ring should be 5 mm.

Running speed v	0,1 m/s
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Medium/ Temperature	93 AU V167/NBR/POM PO202
HFA fluids	+5 °C ... +60 °C
HFD fluids	+5 °C ... +60 °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 $C_{ref} = 0\%$

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
$\leq 400 \text{ mm}$	H8	h9

FITTING & INSTALLATION

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

SPECIALITIES

Profile recommendation

D	S	L
$< 150 \text{ mm}$	7,5 mm	16,0 mm
150 ... 200 mm	10,0 mm	20,0 mm
$> 200 \dots 400 \text{ mm}$	12,5 mm	20,0 mm
$> 400 \text{ mm}$	15,0 mm	25,0 mm