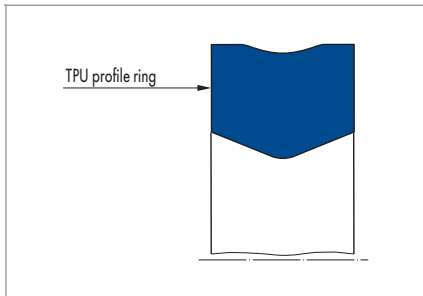


# MERKEL COVER SEAL PU 82



## PRODUCT DESCRIPTION

Single-piece, double-acting compact seal made from TPU for static sealing, inner sealing.

## PRODUCT ADVANTAGES

Interchangeable for O-ring housings and O-ring with back-up ring.

- High reliability
- Simple and secure installation
- Simplified stockkeeping
- Gas proofness

## PRODUCT PROPERTIES

- Gap for breathing (pipe expansion)
- Short rate of increase of the pressure (end position damping)
- Higher operating pressure (up to 60 MPa)
- Alternating in situ operating pressure
- Nominal diameter up to 2000 mm

## APPLICATION

- Cranes
- Construction machinery
- Industrial vehicles
- Forestry equipment
- Presses
- Injection moulding machines
- Wind power plants

## MATERIAL

Material	Code
Polyurethane	95 AU V142/94 AU 925

## OPERATING CONDITIONS

Pressure p	60 MPa
Medium/ Temperature	95 AU V142/94 AU 925
Hydraulic oils HL, HLP	-30 °C ... +110 °C
HFA fluids	+5 °C ... +50 °C
HFB fluids	+5 °C ... +50 °C
HFC fluids	-30 °C ... +40 °C
HFD fluids	-
Water	+5 °C ... +50 °C
HETG (rapeseed oil)	-30 °C ... +60 °C
HEES (synthetic ester)	-30 °C ... +80 °C
HEPG (glycol)	-30 °C ... +50 °C
Mineral greases	-30 °C ... +110 °C

The specified values are maximum values and must not be applied simultaneously.

## 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	0,8 µm	3,2 µm
Groove base	1,6 µm	6,3 µm
Groove flanks	6,3 µm	20,0 µm
Lead-in chamfer*	0,8 µm	3,2 µm

\* burr-free transition

### Admissible gap dimension

Profile dimension	16 MPa	26 MPa	32 MPa	40 MPa	60 MPa
1,78 mm	0,20 mm	0,20 mm	0,15 mm	0,10 mm	0,10 mm
2,62 mm	0,35 mm	0,30 mm	0,25 mm	0,15 mm	0,10 mm
3,50/3,53 mm	0,50 mm	0,40 mm	0,35 mm	0,25 mm	0,20 mm
5,33 mm	0,50 mm	0,40 mm	0,35 mm	0,25 mm	0,20 mm
6,99/7,00 mm	0,55 mm	0,45 mm	0,35 mm	0,35 mm	0,25 mm
8,00 mm	0,55 mm	0,45 mm	0,40 mm	0,35 mm	0,25 mm
8,40 mm	0,55 mm	0,45 mm	0,40 mm	0,35 mm	0,25 mm
10,00 mm	0,60 mm	0,50 mm	0,45 mm	0,40 mm	0,30 mm
12,00 mm	0,60 mm	0,50 mm	0,45 mm	0,40 mm	0,30 mm

### Tolerances

For pressures up to 60 MPa

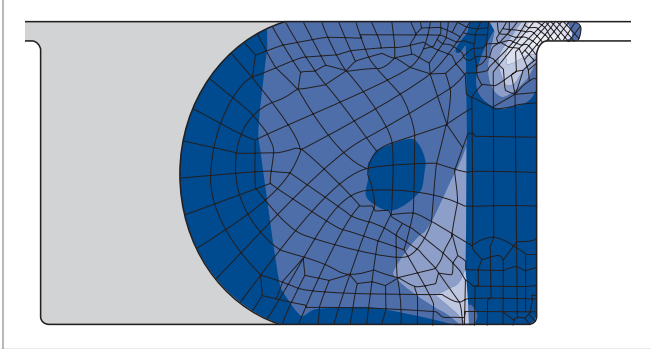
Nominal Ø d	d
≤800 mm	H7/f7
>800 mm	+0,1/-0,05/-0,15

## FITTING & INSTALLATION

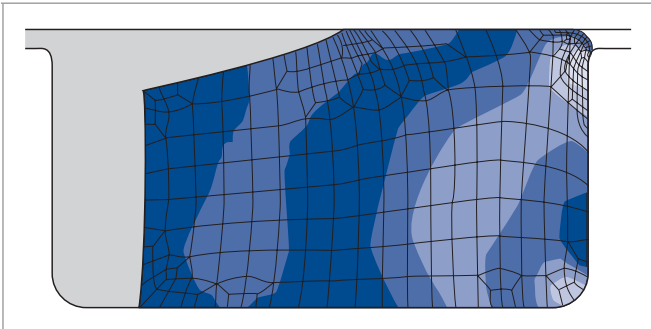
Careful fitting is a prerequisite for the correct function of the seal.  
→ Technical Manual.

## SPECIALITIES

Mode of operation



O-ring with PTFE back-up ring at 40 MPa operating pressure



Cover Seal at 40 MPa operating pressure