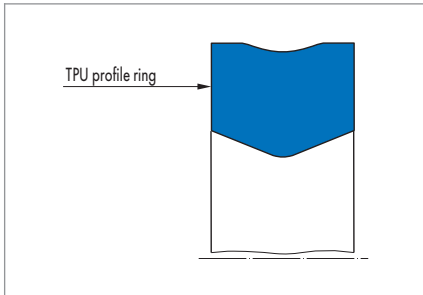


Merkel Cover Seal PU 82



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 _a | R _{max} |
|------------------------|----------------|------------------|
| 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 |

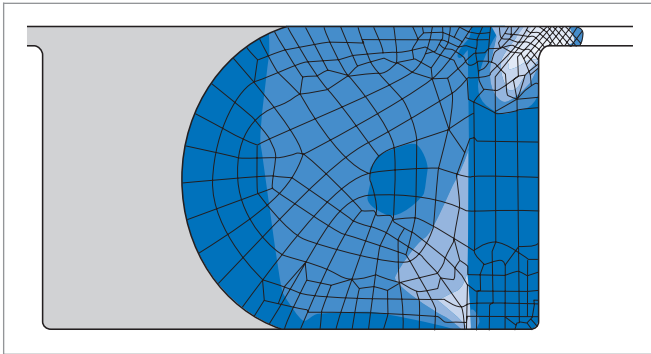
Merkel Cover Seal PU 82

Fitting & installation

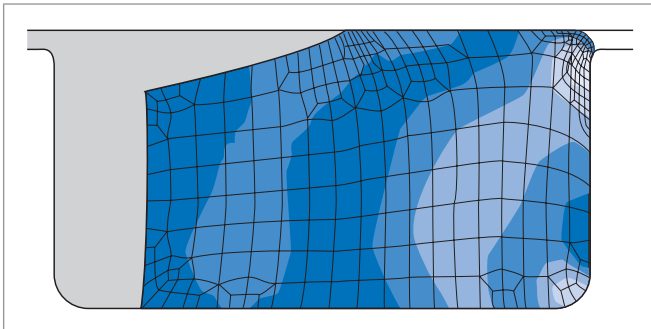
Careful fitting is a prerequisite for the correct function of the seal.
→ Technical Manual.

Specialities

Mode of operation



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



Cover Seal at 40 MPa operating pressure