## MERKEL DOUBLE WIPER PT 2



## PRODUCT DESCRIPTION

Merkel Double Wiper PT 2 consisting of one profile ring made from PTFE with a sealing edge and a wiper edge, as well as two O-rings as sealing and pre-load components.

## PRODUCT ADVANTAGES

Double wiper for improvement of total tightness. The Merkel Double Wiper PT 2 is mainly fitted in combination with our rod seals Merkel Omegat OMS-S. A pressure relieving bore is to be provided between seal and wiper

- Excellent regulation and positioning in operation
- Low friction, free of stick-slip
- Material variants for short stroke and high frequency; available on enquiry
- Especially suitable for large diameters


## APPLICATION

- Presses
- Injection moulding machines
- Steel hydraulics engineering
- Rolling mills


## MATERIAL

Profile ring

| Material | Code | Hardness |
| :---: | :---: | :---: |
| PTFE bronze compound | PTFE B602 | - |

O-ring

| Material | Code | Hardness |
| :---: | :---: | :---: |
| Nitrile rubber NBR | NBR | 70 Shore A |
| Fluoro rubber | FKM | 70 Shore A |

OPERATING CONDITIONS


| Medium/ <br> Temperature | 85 NBR B247 | 85 FKM K664 |
| :---: | :---: | :---: |
| Hydraulic oils HL, HLP | $-30^{\circ} \mathrm{C} \ldots+100^{\circ} \mathrm{C}$ | $-10^{\circ} \mathrm{C} \ldots+200^{\circ} \mathrm{C}$ |
| HFA fluids | $+5^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}$ | $+5^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}$ |
| HFB fluids | $+5^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}$ | $+5^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}$ |
| HFC fluids | $-30{ }^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}$ | - |
| HFD fluids | - | $+10^{\circ} \mathrm{C} \ldots+200^{\circ} \mathrm{C}$ |
| Water | $+5^{\circ} \mathrm{C} \ldots+100^{\circ} \mathrm{C}$ | $+5^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ |
| HETG (rapeseed oil) | $-30^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ | $-10^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ |
| HEES (synthetic ester) | $-30^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ | $-10^{\circ} \mathrm{C} \ldots+100^{\circ} \mathrm{C}$ |
| HEPG (glycol) | $-30^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}$ | $-10^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ |
| Mineral greases | $-30^{\circ} \mathrm{C} \ldots+100^{\circ} \mathrm{C}$ | $-10^{\circ} \mathrm{C} \ldots+200^{\circ} \mathrm{C}$ |

## DESIGN NOTES

Please observe our general design notes in $\rightarrow$ Technical Manual.
Surface quality

| Peak-to-valley heights | $\mathbf{R}_{\mathbf{a}}$ | $\mathbf{R}_{\max }$ |
| :---: | :---: | :---: |
| Sliding surface | ${ }^{*} \mu \mathrm{~m}$ | ${ }^{*} \mu \mathrm{~m}$ |
| Groove base | $\leq 1,6 \mu \mathrm{~m}$ | $\leq 6,3 \mu \mathrm{~m}$ |
| Groove flanks | $\leq 3,0 \mu \mathrm{~m}$ | $\leq 15,0 \mu \mathrm{~m}$ |

* Surface roughness of the sliding surface to suit the sealing component used.

Tolerances

| Nominal $\boldsymbol{\varnothing}$ d | D | $\mathbf{D}_{\mathbf{1}}$ |
| :---: | :---: | :---: |
| $100 \ldots 1200 \mathrm{~mm}$ | H 8 | H 8 |

## FITTING \& INSTALLATION

Careful fitting is a prerequisite for the correct function of the Merkel Double Wiper PT 2. Generally, wipers can be quickly and easily fitted by deforming into a kidney shape. $\rightarrow$ Technical Manual. For diameters from $>100 \mathrm{~mm}$ to 150 mm , a fitting tool is required. Under 100 mm , no fitting in plunge-cut groove is possible.

Lead-in chamfers
Length and angle are to be designed to suit the rod seal used.

