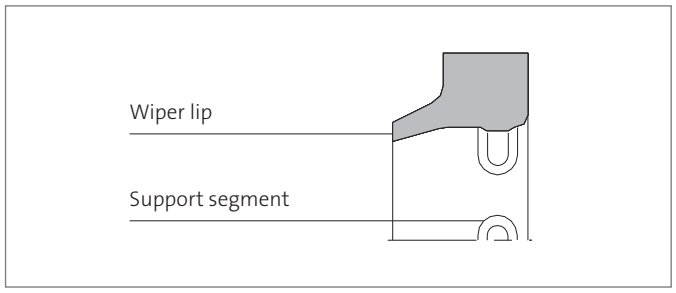
MERKEL WIPER P 6

Merkel wiper P 6 is a single-acting elastomer dirt wiper with support segments to avoid twisting.



Applications
The P 6 dirt wiper is principally used in the large diameter range of standard applications.

Material

Material	Designation	Color
Nitrile rubber	85 NBR B247	black
Fluoroelastomer	85 FKM K664	black

VALUE TO THE CUSTOMER

- Good seating at the outer diameter
- Very good wiping performance
- Wiper can be used in a wide temperature range
- No twisting in the housing and no pressure build-up between seal and wiper

FEATURES AND BENEFITS

Operating conditions

Material	85 NBR B247	85 FKM K664
Hydraulic oils, HL, HLP	–30 ... +100 °C	–10 ... +200 °C
HFA fluids	+5 ... +60 °C	+5 ... +60 °C
HFB fluids	+5 ... +60 °C	+5 ... +60 °C
HFC fluids	–30 ... +60 °C	–
HFD fluids	–	–10 ... +200 °C
Water	+5 ... +100 °C	+5 ... +80 °C
HETG (rape-seed oil)	–30 ... +80 °C	–10 ... +80 °C
HEES (synth. ester)	–30 ... +80 °C	–10 ... +100 °C
HEPG (glycol)	–30 ... +60 °C	–10 ... +80 °C
Mineral greases	–30 ... +100 °C	–10 ... +200 °C
Sliding speed	2 m/s	2 m/s

The figures given are maximum values and must not be applied simultaneously.

Surface finish

Peak-to-valley heights	R_a	R_{max}
Sliding surface	*	*
Groove base	≤1,6 µm	≤6,3 µm
Groove sides	≤3,0 µm	≤15,0 µm

Material content M_r > 50 % to max. 90 %, with cut depth c = R_z/2 and reference line C_{ref} = 0 %.
* Surface roughness of the sliding surface to suit the sealing component used.

The long-time behavior of a sealing element and its dependability against early failures are crucially influenced by the quality of the counter surface. A precise description and assessment of the surface is thus indispensable.
Based on recent findings, we recommend supplementing the above definition of surface finish for the sliding surface by the characteristics detailed in the table below. With these new characteristics derived from the material content, the hitherto merely general description of the material content is significantly improved, not least in regard to the abrasiveness of the surface.
Please also consult our Technical Manual.

Design notes
Please note our general design-related remarks in our technical manual.

Tolerance recommendation

Nominal-Ø d [mm]	D	D_1
16 ... 2,900	H10	H11

The tolerance for the diameter d is determined by the buffer seal.

Installation chamfers
Length and angle must be executed to suit the rod seal being used.

Installation & assembly
Careful installation is a prerequisite for the correct function of the wiper P 6. Generally, wipers can be quickly and easily fitted by deforming into a kidney shape. Please note the general remarks on the installation of hydraulic seals in our Technical Manual, assembling hydraulic seals.

FEATURES AND BENEFITS

Installation diagram