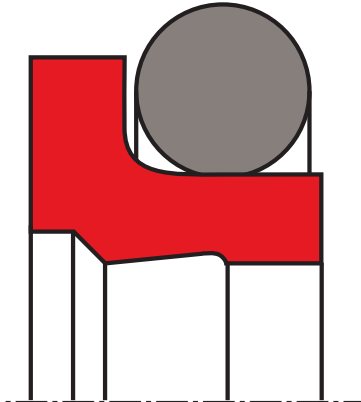


wiper A27-F

seal spec

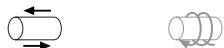


description

PTFE-double wiper with O-ring as preloading element. wiping edge assures a reliable protection against penetration of dust and dirt. additional sealing lip for reduction of residual oil film if used in combination with O-ring activated PTFE seals type S09 (tandem). excellent chemical and thermal resistance (depends on O-ring).

- the seal profile and close machining tolerances provide a good static seal for the outside diameter, assisting in the prevention of ingress of humidity and foreign matter via the outside diameter.
- the wiping part consists of PTFE with fillers, selected to suit the respective application, and an O-ring as preload elements. the PTFE part takes over the wiping function, the O-ring maintains even contact pressure.
- the design of the wiping edge aids recovery of the residual oil film; any dirt is wiped off reliably.
- in addition, the sealing edge reduces the residual oil film on the side of the medium if composite seals on PTFE basis, (e.g. S09), are used (tandem arrangement). in the standard design, pressurisation should be limited to 16 bar.

application



not bolded symbols; please consult our technical for application limitations

category of profile

machined or molded/standard/trade product.

double acting

area of application: hydraulics/pneumatics

- reciprocating, swivelling and coiling rods on hydraulic cylinders.
- push rods and valve stems.
- (materials must be selected according to operating requirements).

advantages:

- small installation grooves.
- minimal break-out and dynamic slide friction. therefore no stick-slip. steady movement is guaranteed even at low velocities.
- excellent sliding properties.
- high wear resistance, therefore long service life.
- available in diameters up to 2000 mm.

function:

A27-F wipers are designed to keep dust, dirt, sand and metal chips from the sealing and guiding elements, thereby avoiding abrasive damage caused by external contamination.

**operating parameters & material**

diameter range: up to 600 mm

material		temperature	max. surface speed	max. pressure ¹	hydrolysis	dry running	wear resistance
sealing element	energizer						
s-mart PTFE glass	NBR 70 shore A	-30 °C ... +100 °C	10 m/s	-	++	+	+
s-mart PTFE glass	FKM 75 shore A	-20 °C ... +200 °C	10 m/s	-	++	+	+
s-mart PTFE bronze	NBR 70 shore A	-30 °C ... +100 °C	10 m/s	-	++	+	+
s-mart PTFE bronze	FKM 75 shore A	-20 °C ... +200 °C	10 m/s	-	++	+	+
s-mart PTFE carbon	NBR 70 shore A	-30 °C ... +100 °C	10 m/s	-	++	+	+
s-mart PTFE carbon	FKM 75 shore A	-20 °C ... +200 °C	10 m/s	-	++	+	+
s-mart XPU	NBR 70 shore A	-30 °C ... +110 °C	5 m/s				

the stated operation conditions represent general indications. it is recommended not to use all maximum values simultaneously.

surface speed limits apply only to the presence of adequate lubrication film.

¹ pressure ratings are dependent on the size of the extrusion gap.

++ ... particularly suitable

o ... conditional suitable

+ ... suitable

- ... not suitable

for detailed information regarding chemical resistance please refer to our "list of resistance".

mode of installation

the prerequisites for perfect functioning are careful fitting and an accurately dimensioned mounting space. In general, wipers snap easily into their housings when distorted into a kidney shape (over 20mm diameter). A large insertion chamfer must be provided (20-30°, length = (D-d)/4).

surface quality

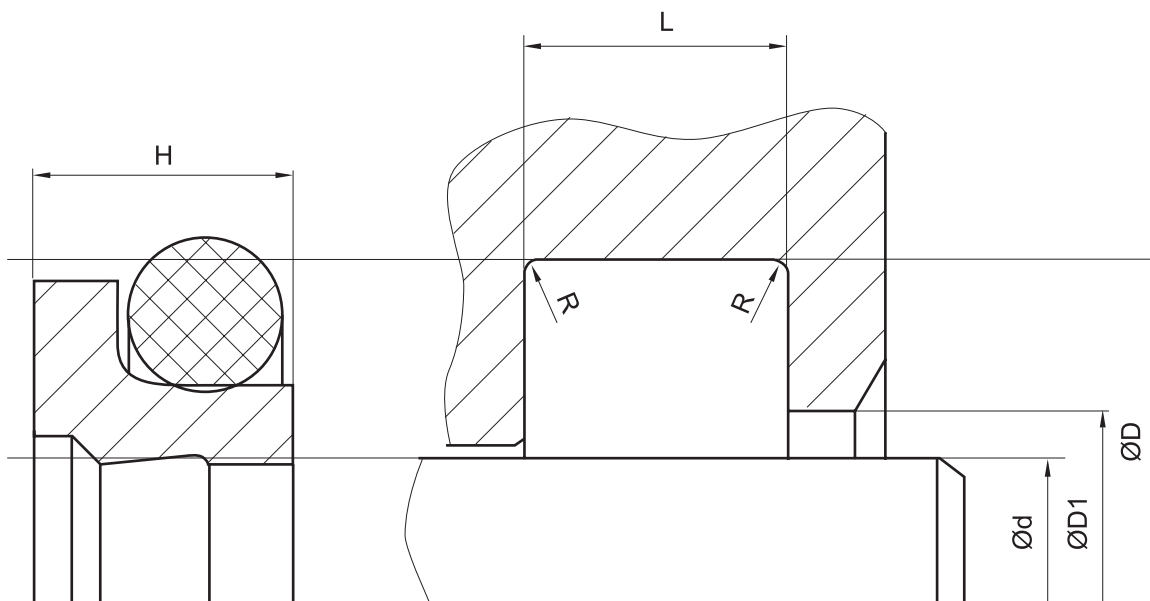
surface roughness	Rtmax (µm)	Ra (µm)		
sliding surface	according to seal data			
bottom of groove	≤6,3	≤1,6		
groove face	≤15	≤3		
Ød	≤10	>10 ... ≤63	>63 ... ≤250	>250
R max	0,4	0,7	1	1,5

tolerance recommendation

seal housing tolerances	
L	+0,2
ØD	H9

seal & housing recommendations

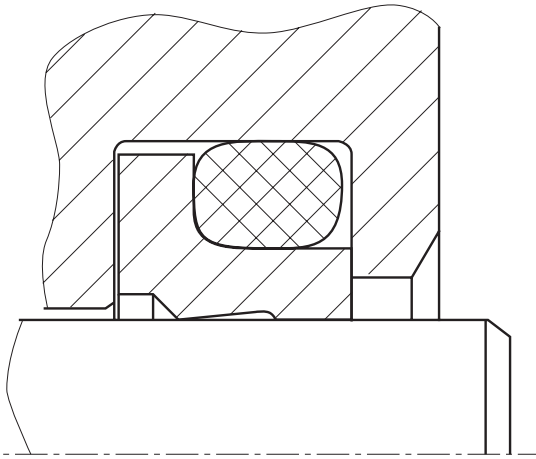
please note that we are able to produce those profiles to your specific need or any non standard housing. for detail measurements, please see seal-mart catalog...





recommended rod Ød range		L [mm]	ØD	ØD1	O-ring cross-section
≥	<				
6	12	3,7	Ød + 4,8	Ø d +1,5	1,78
12	65	5	Ød + 6,8	Ø d +1,5	2,62
65	250	6	Ød + 8,8	Ø d +2,0	3,53
250	420	8,4	Ød + 12,2	Ø d +2,0	5,33
420	650	11	Ød + 16	Ø d +2,5	6,99
650	1000	14	Ød + 20	Ø d +2,5	8,4

fitted:



don't hesitate to contact our technical department for further information or for special requirements (temperature, speed etc.), so that suitable materials and/or designs can be recommended.