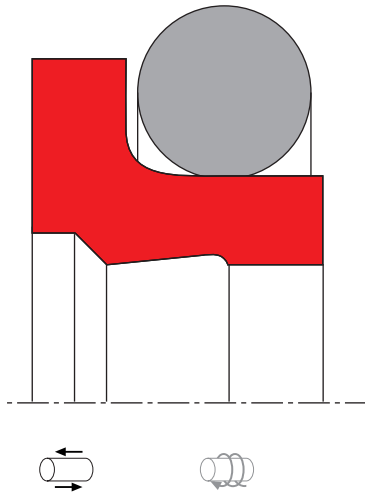


SEAL SPEC A27-F



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.

category of profile

machined or molded/standard/trade product.

double acting

the A27-F seal is designed for use as a wiper.

area of application; hydraulics/pneumatics

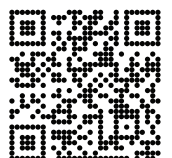
- reciprocating, swiveling and coiling rods on hydraulic cylinders.
- push rods and valve stems.
- materials must be selected according to operating requirements.

advantages

- small installation grooves.
- minimal break-out and dynamic sliding 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 abrasive damage caused by external contamination.



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operating parameter & material

sealing element	material energizer	back-up ring	temperature	max surface speed	max pressure ¹	hydrolysis	dry running	wear resistance
PTFE glass	NBR (70 shore A)		-30 °C ... +100 °C	10 m/s	16 bar (1,6 MPa)	-	++	+
PTFE glass	FKM (75 shore A)		-20 °C ... +200 °C	10 m/s	16 bar (1,6 MPa)	-	++	+
PTFE bronze	NBR (70 shore A)		-30 °C ... +100 °C	10 m/s	16 bar (1,6 MPa)	-	++	+
PTFE bronze	FKM (75 shore A)		-20 °C ... +200 °C	10 m/s	16 bar (1,6 MPa)	-	++	+
PTFE carbon	NBR (70 shore A)		-30 °C ... +100 °C	10 m/s	16 bar (1,6 MPa)	-	++	+
PTFE carbon	FKM (75 shore A)		-20 °C ... +200 °C	10 m/s	16 bar (1,6 MPa)	-	++	+
XPU	NBR (70 shore A)		-30 °C ... +110 °C	5 m/s				

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

++ particularly suitable

+ suitable

o conditional suitable

- not suitable

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.

for detailed information regarding chemical resistance please refer to our "list of resistance". for increased chemical and thermal resistance rubber materials are to be preferred, polyurethan materials increase wear resistance.

surface quality

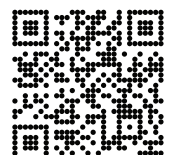
surface roughness	Rtmax (µm)	Ra (µm)
sliding surface	according to seal data	
bottom of groove	≤6,3	≤1,6
groove face	≤15	≤3

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).

tolerance recommendation

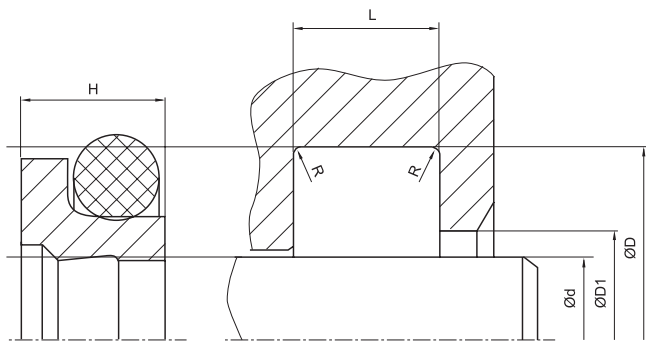
seal housing tolerance	
L	0,2
∅D	H9



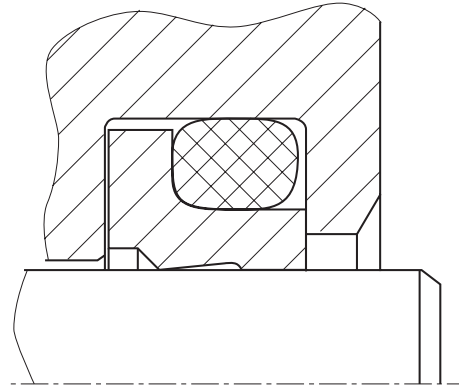
SEAL SPEC A27-F

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...



fitted



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

