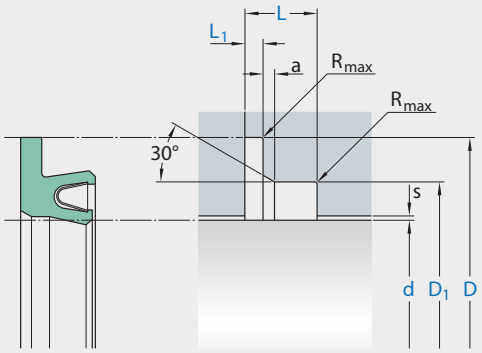
R19-F



Ordering dimensions in blue

Surface roughness	R_{tmax}	R_a
Sliding surface	≤ 2 µm	0,05–0,3 µm
Bottom of groove	≤ 6,3 µm	≤ 1,6 µm
Groove face	≤ 15 µm	≤ 3 µm

Hardness: Min 45 HRC (55 HRC recommended), hardened depth > 0,3 mm.
Bearing area: 50–95% and a cutting depth of 0,5 R_z based on C_{ref} = 0%

Standard dimensions d f8 over	incl.	D H10	D_1 H9	a	L +0,2	L_1	R_{max}	Maximal radial extrusion gap s* 20 bar	100 bar	150 bar
mm								mm		
5	20	d + 9,0	d + 5,0	0,8	3,6	0,85 –0,10	0,4	0,25	0,15	0,10
20	40	d + 12,5	d + 7,0	1,2	4,8	1,35 –0,10	0,4	0,35	0,20	0,15
40	400	d + 17,5	d + 10,5	1,4	7,1	1,80 –0,15	0,4	0,50	0,25	0,20
400		d + 22,0	d + 14,0	1,6	9,5	2,80 –0,20	0,4	0,60	0,30	0,25

* Extrusion gap values shown above are valid fora temperature of 80 °C, higher temperatures require lower values.

application

operating parameters & material

diameter range: up to 600 mm

material		temperature	max. surface speed	max. pressure [1]
sealing element	spring			
Ecoflon 2	14.310	-200 °C ... +260 °C	15 m/s	300 bar (30 MPa)
Ecoflon 2	14.310	-200 °C ... +260 °C	15 m/s	300 bar (30 MPa)
Ecoflon 3	14.310	-200 °C ... +260 °C	15 m/s	300 bar (30 MPa)
all material posible	14.310	choice is dependent upon application (preload, ...)		

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.

(D1-d)/2	spring
3 ... 4.6 mm	6,35 x 0,15
>4.6 ... 6 mm	9,8 x 0,18
>6 ... 8 mm	14,1 x 0,22

surface quality

surface roughness	Rtmax (µm)	Ra (µm)
rotating	≤ 1 -2,5	≤ 0,1-0,2
linear	≤ 2,5-4	≤ 0,2-0,4

tolerance recommendation

seal housing tolerances	
Ød	f8/h9
ØD	H10
ØD1	H9
ØL1 ≤ 1,35	-0,1
ØL > 1,35 ... ≤ 1,8	-0,15
ØL > 1,8	-0,2