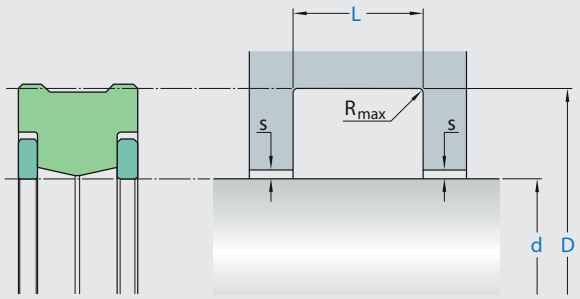
R03-R



Ordering dimensions in blue

Surface roughness	R_{tmax}	R_a
Sliding surface	≤ 2,5 µm	0,1–0,5 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%

application

not bolded symbols; please consult our technical for application limitations

Standard dimensions

d* over	d* incl.	D H9	L + 0,2	R_{max}	s
mm					
22	36	d + 10	8	0,2	e8/H9
36	56	d + 12	8	0,2	e8/H9
56	85	d + 15	11	0,2	f7/H7
85	140	d + 20	13	0,2	f7/H7
140	200	d + 25	16	0,2	f7/H7
200	300	d + 30	19	0,2	f7/H7
300		d + 40	26	0,2	f7/H7

* Tolerance area shaft ≤ 56 mm † e8, > 56 mm † f7

operating parameters & material

diameter range: up to 600 mm

material		temperature	max. surface speed	max. pressure [1]
sealing element	back-up ring			
Ecorubber 1	Ecotal/Ecomid [2]	-30 °C ... +100 °C	0,2 m/s	250 bar (3600 psi)
Ecorubber H	Ecotal/Ecomid [2]	-25 °C ... +100 °C	0,2 m/s	250 bar (3600 psi)
Ecorubber 2	Ecoflon 1	-20 °C ... +200 °C	0,2 m/s	250 bar (3600 psi)
Ecorubber 2	Ecoflon 2	-20 °C ... +200 °C	0,2 m/s	250 bar (3600 psi)
Ecorubber 2	Ecoflon 3	-20 °C ... +200 °C	0,2 m/s	250 bar (3600 psi)
Ecorubber 2	Ecoflon 4	-20 °C ... +200 °C	0,2 m/s	250 bar (3600 psi)

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.

[2] Ecotal up to ø260 mm, Ecomid above ø260 mm.

surface quality

surface roughness	Rtmax (µm)	Ra (µm)
sliding surface	≤3	≤0,3
bottom of groove	≤10	≤1,8
groove face	≤16	≤3

tolerance recommendation

seal housing tolerances	
Ød	f7
ØD	H8