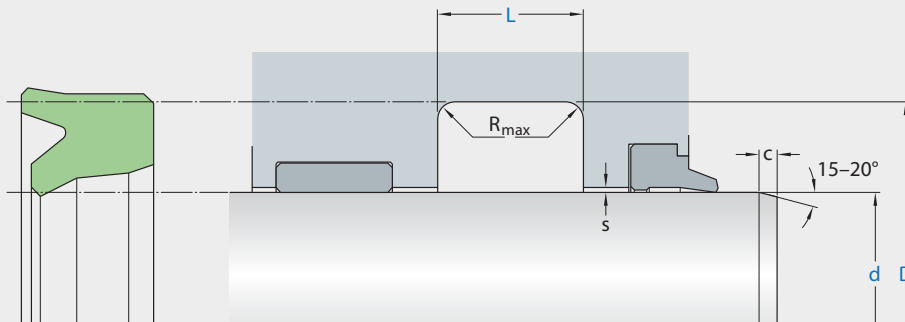


S01-R



Ordering dimensions in blue

| Surface roughness | R_{tmax} | R_a |
|-------------------|------------------|------------------|
| Sliding surface | $\leq 2,5 \mu m$ | $0,05-0,3 \mu m$ |
| Bottom of groove | $\leq 6,3 \mu m$ | $\leq 1,6 \mu m$ |
| Groove face | $\leq 15 \mu m$ | $\leq 3 \mu m$ |

Bearing area: 50-95% and a cutting depth of $0,5 R_z$, based on $C_{ref} = 0\%$

| Standard dimensions | | | | | | Maximal radial extrusion gap s^* | | |
|---------------------|-------|--------|-------|-----------|------|------------------------------------|---------|---------|
| d | f8 | D | L | R_{max} | c | 20 bar | 100 bar | 160 bar |
| over | incl. | H10 | + 0,2 | | | | | |
| mm | | | | | | mm | | |
| 11 | 25 | d + 8 | 6,3 | 0,4 | 3,5 | 0,23 | 0,16 | 0,14 |
| 25 | 50 | d + 10 | 8,0 | 0,4 | 4,0 | 0,26 | 0,19 | 0,17 |
| 50 | 150 | d + 15 | 10,0 | 0,4 | 5,0 | 0,31 | 0,24 | 0,22 |
| 150 | 300 | d + 20 | 14,0 | 0,4 | 6,0 | 0,34 | 0,27 | 0,25 |
| 300 | 500 | d + 25 | 17,0 | 0,4 | 8,5 | 0,37 | 0,30 | 0,29 |
| 500 | 700 | d + 30 | 25,0 | 0,4 | 10,0 | 0,40 | 0,34 | 0,32 |
| 700 | | d + 40 | 32,0 | 0,4 | 13,0 | 0,40 | 0,34 | 0,32 |

application



not bolded symbols; please consult our technical for application limitations

* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

operating parameters & material

diameter range: up to 600 mm

| material | temperature | max. surface speed | max. pressure ¹ | hydrolysis | dry running | wear resistance |
|--------------------------|--------------------|--------------------|----------------------------|------------|-------------|-----------------|
| Ecorubber 1 | -30 °C ... +100 °C | 0,5 m/s | 160 bar (16 MPa) | - | - | O |
| Ecorubber 2 | -20 °C ... +200 °C | 0,5 m/s | 160 bar (16 MPa) | - | - | O |
| Ecorubber 3 ² | -50 °C ... +150 °C | 0,5 m/s | 160 bar (16 MPa) | ++ | - | O |
| Ecorubber H | -25 °C ... +150 °C | 0,5 m/s | 160 bar (16 MPa) | + | O | + |
| Ecosil | -60 °C ... +200 °C | - | - | ++ | - | - |

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 attention: not suitable for mineral oils!

++ ... particularly suitable

o ... conditional suitable

+ ... suitable

- ... not suitable

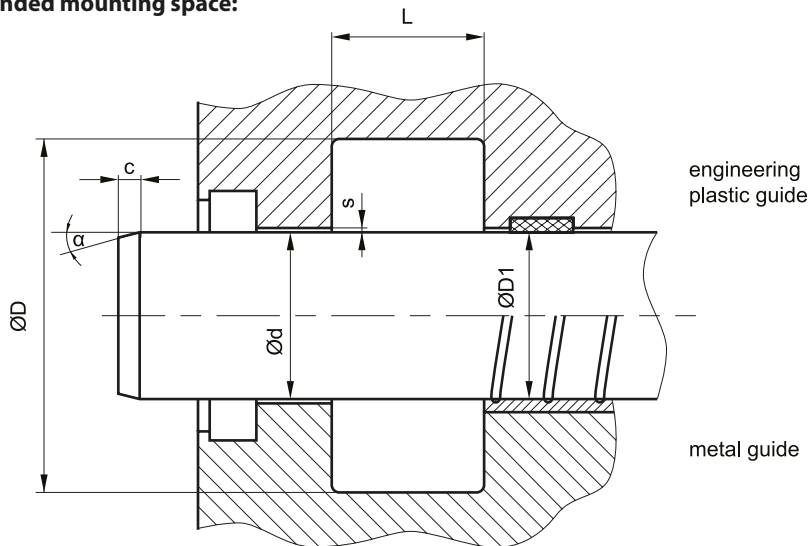
for detailed information regarding chemical resistance please refer to our „list of resistance“. for increased wear resistance and higher pressure range polyurethane materials are to be preferred, attention should be paid to restrictions in chemical and thermal resistance. for higher gliding speeds another sealing system should be used (e.g. PTFE materials).

mode of installation

for inside diameters of 25mm or more, and dependant on radial cross section (cs), seals may be snapped into the housing.

| Ød | type of installation |
|----------------------|------------------------------|
| ≤ 6•cs | open mounting space required |
| > 6•cs ≤ 10•cs | snap mounting with tool |
| > 10•cs | snap mounting by hand |

recommended mounting space:



recommended guide tolerance D1:

| d f8 [mm] | p < 100 [bar] | p > 100 [bar] | secondary seal |
|-------------|---------------|---------------|----------------|
| ≤ 100 | H10 | H8 | H8 |
| > 100 ≤ 200 | H10 | H8 | H8 |
| > 200 | H9 | H8 | H8 |

insertion chamfer:

in order to avoid damage to the rod seal during installation, the piston rod is to be chamfered and rounded as shown in the "recommended mounting space" drawing. the size of chamfer depends on the seal type and profile width.

| cs (mm) | c (mm) | |
|---------|-----------------|-----------------|
| | α = 15° ... 20° | α = 20° ... 30° |
| (2) | 2 | 1 |
| (3) | 3 | 1,5 |
| 4 | 3,5 | 2 |
| 5 | 4 | 2,5 |
| 6 | 4,5 | 3 |
| 7,5 | 5 | 4 |
| 10 | 6 | 5 |
| 12,5 | 8,5 | 6,5 |
| 15 | 10 | 7,5 |
| 20 | 13 | 10 |