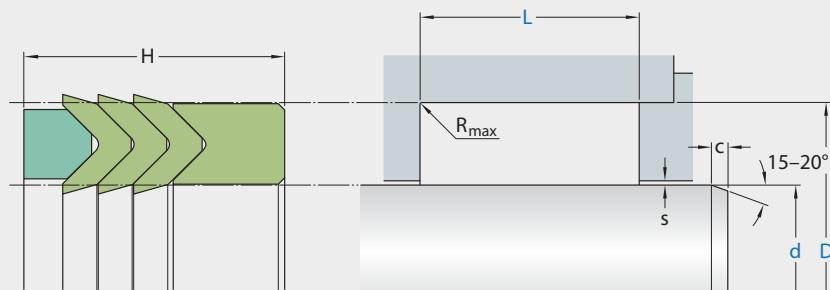


S1012-T



Ordering dimensions in blue

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

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

| Standard dimensions | | D | L | $R_{t\max}$ | c | s^* |
|---------------------|---------------|--------|------|-------------|-----|-------|
| d | f8 over incl. | H10 | +0,2 | | | |
| mm | | | | | | |
| 10 | 40 | d + 10 | 16 | 0,4 | 4 | 0,25 |
| 40 | 75 | d + 15 | 25 | 0,4 | 5 | 0,38 |
| 75 | 150 | d + 20 | 32 | 0,4 | 6 | 0,50 |
| 150 | 200 | d + 25 | 40 | 0,4 | 8,5 | 0,63 |
| 200 | 300 | d + 30 | 50 | 0,4 | 10 | 0,75 |
| 300 | | d + 40 | 63 | 0,4 | 13 | 1,00 |

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

application



not bolded symbols; please consult our technical for application limitations

operating parameters & material

diameter range: up to 600 mm

| material | | | temperature | max. surface speed | max. pressure ¹ | hydrolysis | dry running | wear resistance |
|----------------------------|-----------------------|----------------------------|--------------------|--------------------|----------------------------|------------|-------------|-----------------|
| header ring S10-A | sealing element S11-M | back-up ring S12-M | | | | | | |
| Ecotal/Ecomid ² | ECOPUR | Ecotal/Ecomid ² | -30 °C ... +100 °C | 0,5 m/s | 500 bar (50 MPa) | - | + | + |
| Ecotal/Ecomid ² | H-ECOPUR | Ecotal/Ecomid ² | -20 °C ... +100 °C | 0,5 m/s | 500 bar (50 MPa) | + | + | + |
| Ecotal/Ecomid ² | T-ECOPUR | Ecotal/Ecomid ² | -40 °C ... +100 °C | 0,5 m/s | 500 bar (50 MPa) | - | + | + |
| Ecotal/Ecomid ² | S-ECOPUR | Ecotal/Ecomid ² | -20 °C ... +100 °C | 0,7 m/s | 500 bar (50 MPa) | + | + | + |
| Ecotal/Ecomid ² | G-ECOPUR | Ecotal/Ecomid ² | -30 °C ... +100 °C | 0,5 m/s | 500 bar (50 MPa) | + | + | + |
| Ecoflon 2 | Ecorubber 1 | Ecoflon 2 | -30 °C ... +100 °C | 0,5 m/s | 500 bar (50 MPa) | - | - | O |
| Ecoflon 2 | Ecorubber 2 | Ecoflon 2 | -20 °C ... +200 °C | 0,5 m/s | 500 bar (50 MPa) | - | - | O |
| Ecoflon 2 | Ecorubber 3 | Ecoflon 2 | -50 °C ... +150 °C | 0,5 m/s | 500 bar (50 MPa) | ++ | - | O |
| Ecoflon 2 | Ecorubber H | Ecoflon 2 | -25 °C ... +150 °C | 0,5 m/s | 500 bar (50 MPa) | + | O | + |

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.

++ ... particularly suitable

o ... conditional suitable

+ ... suitable

- ... not suitable

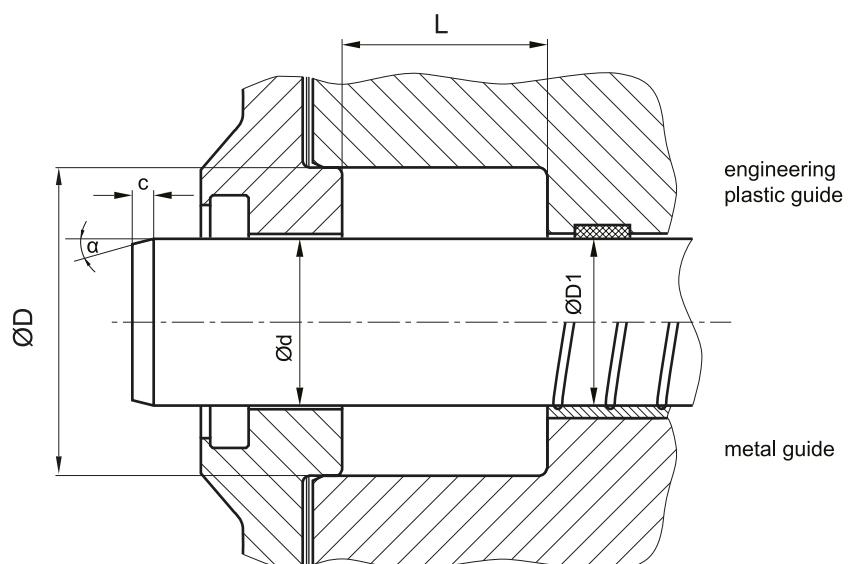
for detailed information regarding chemical resistance please refer to our „list of resistance“. for increased chemical and thermal resistance rubber materials are to be preferred, polyurethane materials increase wear resistance. for higher gliding speeds another sealing system should be used (e.g. PTFE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

mode of installation

insert the male ring first, then the packing and finally the pressure ring (well greased) into the installation space. insert the metal insert without load, complete mounting of the system, tighten metal inserts slightly, let run in (10 to 20 idle strokes); re-tighten depending on leakage. in the case of wear, re-tightening is also possible.

if split seals are used, the packing should be fitted by separating the split ends axially (twisting). joints should be staggered by 90 to 120 degrees relative to each other. split ends should be inserted into the groove first and then the remainder of the seal is pressed in.

recommended mounting space:



the adjustment range of the mounting space height (L) should correspond to approx. 10% of the theoretical mounting length. a guideline for the height of the spacer should be approx. 30% of the cross section.

recommended guide tolerance D1:

| d f8 [mm] | p ≤ 100 [bar] | 100 < p ≤ 200 [bar] | p > 200 [bar] |
|-------------|---------------|---------------------|---------------|
| ≤ 100 | H10 | H8 | H8 |
| > 100 ≤ 200 | H10 | H8 | H7 |
| >200 | H9 | H8 | H7 |

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) | |
|---------|------------------------------------|------------------------------------|
| | $\alpha = 15^\circ \dots 20^\circ$ | $\alpha = 20^\circ \dots 30^\circ$ |
| 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 |