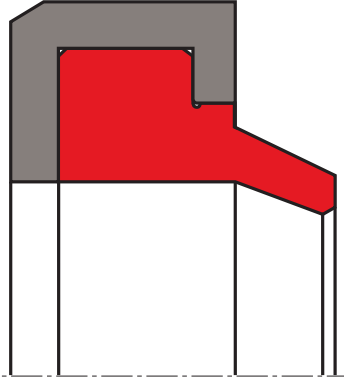


wiper A03-A

seal spec



description

wiper with mounting cage for press-fit installation into axially open housings. wiping edge assures a reliable protection against penetration of dust and dirt, the use of plastic mounting cages avoids corrosion in the press-fit. for housings according ISO 6195-Type B.

- 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 trailing side.
- the use of plastic for the retaining ring prevents corrosion in the seat.
- an interference fit on the outside diameter ensures the wipers are held in place and also prevent humidity and foreign matter from entering via the outside diameter.
- this profile is not suited for pressure from the trailing side.

application



not bolded symbols; please consult our technical for application limitations

category of profile

machined only.

single acting

area of application: hydraulics & pneumatics

- reciprocating rods on hydraulic cylinders.
- push rods and valve stems.
- (materials must be selected according to operating requirements).
- the profile is suited for mounting space according to ISO 6195-1986 type B.

function

A03-A wipers are designed to keep dust, dirt, sand and metal chips away from the sealing and guiding elements, thereby avoiding abrasive damage caused by external contamination.

**operating parameters & material**

diameter range: up to 600 mm

material		temperature	max. surface speed	hydrolysis	dry running	wear resistance
wiping part	housing					
s-mart PU	s-mart POM/ s-mart PA ² /Metal	-30 °C ... +110 °C	4 m/s	-	+	++
s-mart HPU	s-mart POM/ s-mart PA ² /Metal	-20 °C ... +110 °C	4 m/s	+	+	++
s-mart LTPU	s-mart POM/ s-mart PA ² /Metal	-50 °C ... +110 °C	4 m/s	-	+	++
s-mart SPU	s-mart POM/ s-mart PA ² /Metal	-20 °C ... +110 °C	5 m/s	+	+	++
s-mart GPU	s-mart POM/ s-mart PA ² /Metal	-30 °C ... +110 °C	4 m/s			
s-mart NBR	s-mart POM/ s-mart PA ² /Metal	-30 °C ... +100 °C	4 m/s	-	-	O
s-mart HNBR	s-mart POM/ s-mart PA ² /Metal	-25 °C ... +150 °C	4 m/s	+	O	+
s-mart EPDM ¹	s-mart PAEK/Metal	-50 °C ... +150 °C	4 m/s	++	-	O
s-mart FKM	s-mart PAEK/Metal	-20 °C ... +200 °C	4 m/s	-	-	O
s-mart XPU	s-mart POM/ s-mart PA ² /Metal	-30 °C ... +110 °C	4 m/s			
s-mart XHPU	s-mart POM/ s-mart PA ² /Metal	-20 °C ... +110 °C	4 m/s			
s-mart XSPU	s-mart POM/ s-mart PA ² /Metal	-20 °C ... +110 °C	5 m/s			

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 attention: not suitable for mineral oils!

² POM up to ø260 mm, PA 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, polyurethan materials increase wear resistance.

notes on special materials:

at temperatures above 80°C, the internal stress of POM may be lost. for the use of retaining rings above 80°C or below -30°C, the PEEK material may be used (for limits to application see data sheet). aluminium rings have also been successfully used (shaping according to standard range). please note that the application limits are determined by all the materials used.

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

tolerance recommendation

seal housing tolerances	
ØD	H8

mode of installation

the prerequisites for perfect functioning are careful fitting and an accurately dimensioned housing space. the wiper is pressed in; installation can also be done separately (first the retaining ring is snapped in and then the elastomer part).



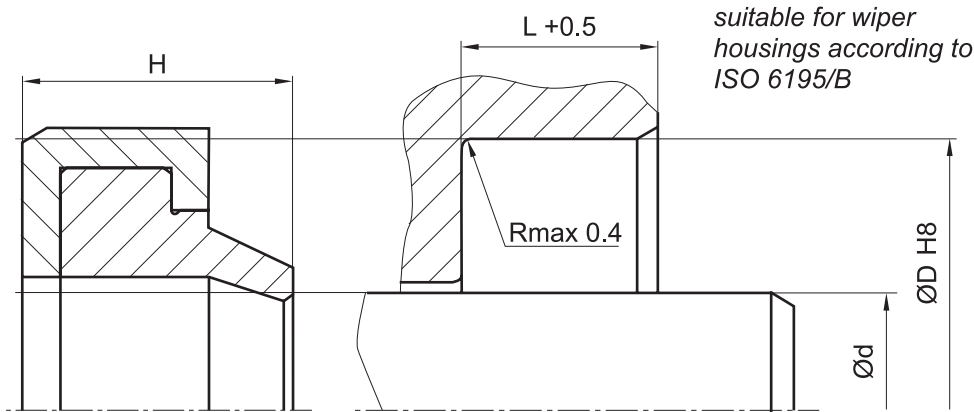
installation

the wiper is easily built in to split housing, provided the lead-in chamfer is in accordance with the table below:

H [mm]	chamfer [mm] with angle 20°
≤ 4,5	0,6
5	0,6
6	0,8
7	0,8
8	1
9	1
10	1,4
12	1,8
14	2
16	2,4

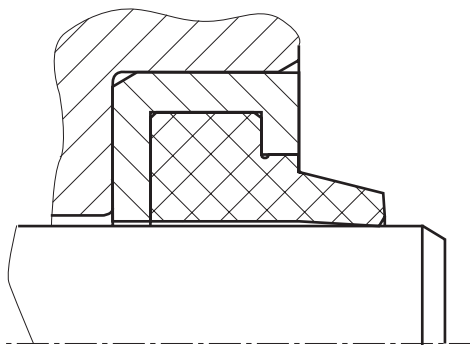
seal & housing recommendations

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...



suitable for wiper housings according to ISO 6195/B.

fitted:



don't hesitate to contact our technical department for further information or for special requirements (temperature, speed etc.), so that suitable materials and/or designs can be recommended.