

# PISTON SEALS BECA 590



## DESCRIPTION

The BECA 590 profile is a double acting composite piston seal composed of a polyurethane friction ring (two pneumatic fluid retention beads) and a pre-tightened rubber O'Ring.

## ADVANTAGES

Optimal sealing in static and dynamic applications

Excellent abrasion and wear resistance

## APPLICATIONS

- Shock absorbers
- Distributor
- Standard cylinders

## MATERIALS

### Friction ring

- PU 93 Shore A - Blue
- PU 96 Shore A - Blue
- High temp. PU 96 Shore A - Beige

### O'Ring

NBR 70 Shore A

Other grades of materials are available. Please refer to the materials table.

## TECHNICAL DATA

Temperature	-30°C / +100°C
Pressure	1.6 MPa (5.0 MPa max)
Speed	1 m/s
Media	Lubricated air Oil-free air Non-aggressive gases

The figures above indicate the maximum values and may not be cumulated. They may be developed, depending on the materials used.

## EXTRUSION GAPS

Radial section S	Radial gap F/2
	0.0 to 5.0 MPa
4.00	0.50
6.00	0.70
8.50	1.00

## SURFACE ROUGHNESS

Roughness	Dynamic surface area	Static surface area	Groove flanks
Ra	0.1 - 0.4 µm	≤1.6 µm	≤3.2 µm
Rz	0.63 - 2.5 µm	≤6.3 µm	≤10.0 µm
Rmax	1.0 - 4.0 µm	≤10.0 µm	≤16.0 µm

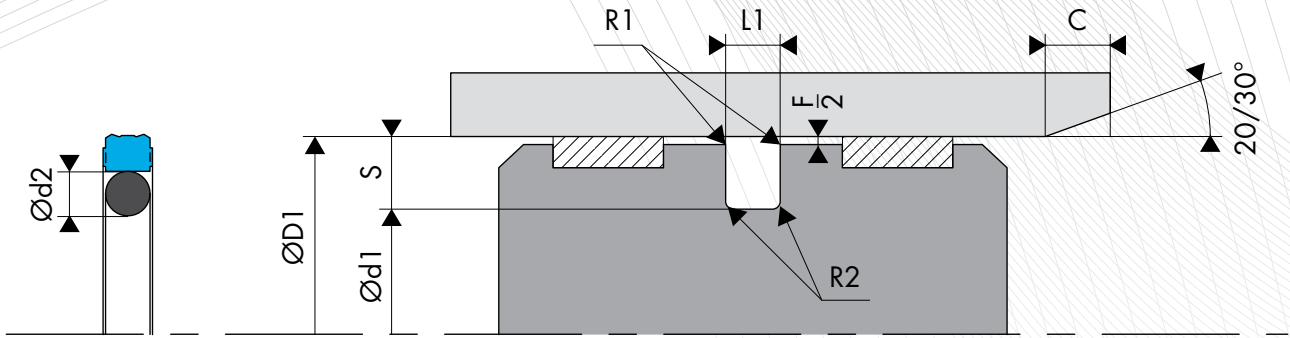
## CHAMFERS AND RADIUS

Radial section S	Radius R1	Radius R2	Chamfer C
4.00	0.30	0.40	3.00
6.00	0.30	0.80	4.00
8.50	0.30	0.80	5.00

○ TABLE MATERIALS

Friction ring					O'Ring			Mating surface material
Standard code	ISO code	Material	Colour	Characteristics	Code	Type of material	Service temperature	
HG	HG	PE-UHMW	White or off-white	Excellent wear resistance on contact with water and air	K6	NBR 70 Shore A	-30°C/+80°C	Steel Stainless steel Chrome steel Aluminium Bronze Cast iron Treated surface
PU	U	Polyurethane	Blue	Strong mechanical resistance Good resistance to wear and abrasion High elasticity modulus Good flexibility	K6	NBR 70 Shore A	-30°C/+90°C	
PUHT	U	High-temperature polyurethane	White or off-white	Very good resistance to ozone and oxidation	K6	NBR 70 Shore A	-30°C/+100°C	

Other grades of materials are available depending on your specificities.



### ○ INSTALLATION DIMENSIONS

Bore diameter ØD1 H9		Groove diameter	Groove width	Radial section	O'Ring cross-section
Standard range	Extended range	Ød1 h9	L1 0/+0.20	S	Ød2
17.0 - 24.9	25.0 - 49.9	D1 - 8.00	3.20	4.00	2.62
25.0 - 49.9	50.0 - 132.9	D1 - 12.00	4.20	6.00	3.53
50.0 - 132.9	133.0 - 199.9	D1 - 17.00	6.30	8.50	5.33

### ○ DIMENSIONS

Part number	Bore diameter ØD1 H9	Groove diameter Ød1 h9	Groove width L1 0/+0.20
590.1020UK6	20.00	12.00	3.20
590.1025UK6	25.00	17.00	3.20
590.2025UK6	25.00	13.00	4.20
590.2030UK6	30.00	18.00	4.20
590.1030UK6	30.00	22.00	3.20
590.2032UK6	32.00	20.00	4.20
590.1032UK6	32.00	24.00	3.20
590.2040UK6	40.00	28.00	4.20
590.1040UK6	40.00	32.00	3.20
590.2050UK6	50.00	33.00	6.30
590.1050UK6	50.00	38.00	4.20
590.2060UK6	60.00	43.00	6.30
590.1060UK6	60.00	48.00	4.20
590.2063UK6	63.00	46.00	6.30
590.1063UK6	63.00	51.00	4.20
590.2065UK6	65.00	48.00	6.30
590.1065UK6	65.00	53.00	4.20
590.2068UK6	68.00	51.00	6.30
590.1068UK6	68.00	56.00	4.20
590.2070UK6	70.00	53.00	6.30
590.1070UK6	70.00	58.00	4.20
590.2075UK6	75.00	58.00	6.30
590.1075UK6	75.00	63.00	4.20

Part number	Bore diameter ØD1 H9	Groove diameter Ød1 h9	Groove width L1 0/+0.20
590.2080UK6	80.00	63.00	6.30
590.1080UK6	80.00	68.00	4.20
590.2085UK6	85.00	68.00	6.30
590.1085UK6	85.00	73.00	4.20
590.2090UK6	90.00	73.00	6.30
590.1090UK6	90.00	78.00	4.20
590.2095UK6	95.00	78.00	6.30
590.1095UK6	95.00	83.00	4.20
590.2100UK6	100.00	83.00	6.30
590.1100UK6	100.00	88.00	4.20
590.2105UK6	105.00	88.00	6.30
590.1105UK6	105.00	93.00	4.20
590.2110UK6	110.00	93.00	6.30
590.1110UK6	110.00	98.00	4.20
590.2115UK6	115.00	98.00	6.30
590.1115UK6	115.00	103.00	4.20
590.2120UK6	120.00	103.00	6.30
590.1120UK6	120.00	108.00	4.20
590.2125UK6	125.00	108.00	6.30
590.1125UK6	125.00	113.00	4.20
590.2130UK6	130.00	113.00	6.30
590.1130UK6	130.00	118.00	4.20