

609

PNEUMATIC SEAL

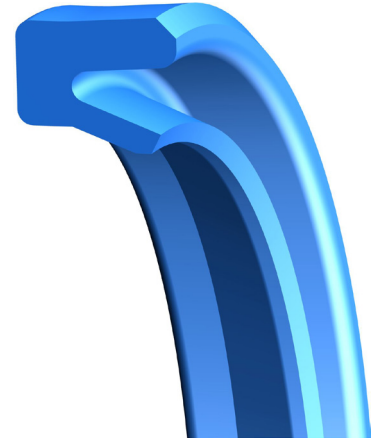
*Single-Acting
Polyurethane Rod Seal*

DESIGN

The Hallite 609 single-acting rod seal for pneumatic applications is designed to give significant improvements in cylinder performance in low lube air conditions and to be used in long and short stroke applications. The Hallite 609 is well proven in heavy-duty pneumatic applications, such as logging and forestry equipment.

The Hallite 609 is manufactured in Hythane® 181, Hallite's high-performance polyurethane, for easy installation, excellent low temperature performance, and long service life.

The material combined with the design of the dynamic sealing lip offers low friction, significantly less than that of a rubber seal, and an ultra-long life.



FEATURES

- Ultra-long life
- Effective seal
- Low friction
- Hard wearing
- Excellent temperature range
- Easy to install

MATERIALS

As standard, this product comes in the following material. Contact your local Hallite technical team if you would like to find out if this profile can be made in a custom material to suit your application. For further material details, please refer to the Hallite Material Table.

MATERIAL OPTIONS	Name	Type	Color
Standard	Hythane® 181	TPU-EU	Blue

TECHNICAL DETAILS

OPERATING CONDITIONS	METRIC	INCH
Maximum Speed	1.0 m/ sec	3.0 ft/sec
Temperature Range	-45°C +80°C	-50°F +180°F
Maximum Pressure	16 bar	230 psi

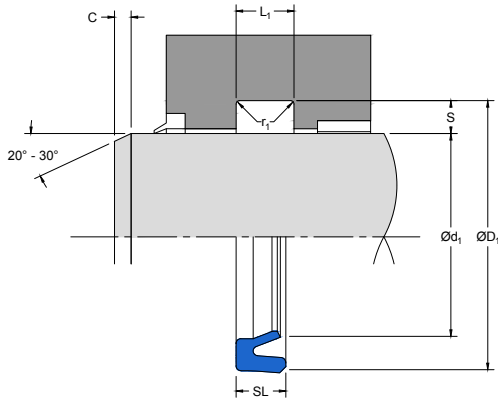
NOTE

Data given are maximum values and can apply depending on specific application. Maximum ratings of temperature, pressure, or operating speeds are dependent on fluid medium, surface, gap value, and other variables such as dynamic or static service. Maximum values are not intended for use together at the same time, e.g. max temperature and max pressure. Please contact your Hallite technical representative for application support.

SURFACE ROUGHNESS	μmRa	μmRz	μmRt	μinRa	μinRz	μinRt
Dynamic Sealing Face $\varnothing d_1$	0.1 - 0.4	1.6 max	4 max	4 - 16	63 max	157 max
Static Sealing Face $\varnothing D_1$	1.6 max	6.3 max	10 max	63 max	250 max	394 max
Static Housing Faces L_1	3.2 max	10 max	16 max	125 max	394 max	630 max

CHAMFERS & RADII			
Groove Section $\leq S$ mm	4.00	5.00	
Min Chamfer C mm	3.00	3.50	
Max Fillet Rad r_1 mm	0.20	0.40	
Groove Section $\leq S$ in	0.125	0.187	0.250
Min Chamfer C in	0.093	0.093	0.125
Max Fillet Rad r_1 in	0.008	0.008	0.016

TOLERANCES	$\varnothing d_1$	$\varnothing D_1$	L_1
mm	f9	js11	+0.25 -0
in	f9	js11	+0.010 -0



609

PNEUMATIC SEAL

*Single-Acting
Polyurethane Rod Seal*

PART NUMBER RANGE

INCH						
Ød ₁	TOL f9	ØD ₁	TOL Js11	SL	L ₁ +0.010-0	PART No.
0.625	-0.001 -0.002	0.875	+0.003 -0.003	0.250	0.275	4490200
0.750	-0.001 -0.003	1.000	+0.003 -0.003	0.250	0.275	4541700
1.000	-0.001 -0.003	1.240	+0.003 -0.003	0.187	0.207	4541800
1.000	-0.001 -0.003	1.250	+0.003 -0.003	0.250	0.275	4471000
1.125	-0.001 -0.003	1.375	+0.003 -0.003	0.187	0.207	4598300
1.250	-0.001 -0.003	1.500	+0.003 -0.003	0.250	0.275	4541900
1.375	-0.001 -0.003	1.625	+0.003 -0.003	0.250	0.275	4542000
1.500	-0.001 -0.003	1.875	+0.003 -0.003	0.250	0.275	4542100
1.750	-0.001 -0.003	2.125	+0.004 -0.004	0.312	0.344	4542200
2.000	-0.001 -0.004	2.250	+0.004 -0.004	0.250	0.275	4543800
2.000	-0.001 -0.004	2.375	+0.004 -0.004	0.312	0.344	4483200
2.000	-0.001 -0.004	2.625	+0.004 -0.004	0.312	0.344	4499200
2.500	-0.001 -0.004	3.000	+0.004 -0.004	0.284	0.312	4542300

METRIC						
Ød ₁	TOL f9	ØD ₁	TOL Js11	SL	L ₁ +0.010-0	PART No.
12.00	-0.02 -0.06	19.00	+0.07 -0.07	4.50	5.00	4510100
16.00	-0.02 -0.06	22.00	+0.07 -0.07	4.00	4.50	4510200
20.00	-0.02 -0.07	28.00	+0.07 -0.07	5.50	6.00	4484300
25.00	-0.02 -0.07	35.00	+0.08 -0.08	7.50	8.00	4510300
32.00	-0.03 -0.09	42.00	+0.08 -0.08	7.00	7.50	4510400

PART NUMBERS ON THIS PAGE ARE LISTED IN THE STANDARD MATERIAL OPTION. FOR MATERIAL VARIATIONS OR FOR CUSTOM SIZES, MATERIALS, OR SEAL DESIGNS, PLEASE CONTACT YOUR LOCAL HALLITE REPRESENTATIVE.