

610

ROD SEAL

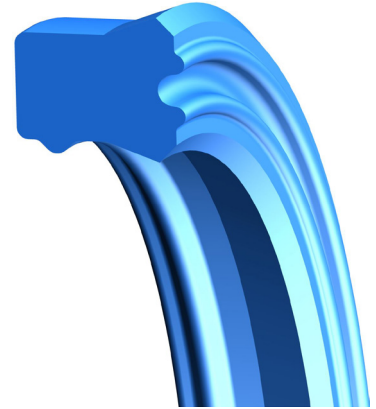
*Twin Lip
Polyurethane*

DESIGN

The Hallite 610 is an asymmetric, solid twin lip rod seal designed to provide a dry sealing solution in light and medium-duty applications and manufactured in Hythane® 181, Hallite's high-performance polyurethane, for easy installation and excellent low temperature performance.

The secondary sealing lip located behind the primary sealing lip improves stability of the seal in the gland.

It is designed for small groove section housing and to be less sensitive to pressure fluctuations than the Hallite 605 twin lip U-ring.



FEATURES

- General purpose rod seal for small groove sections
- Less sensitive to pressure fluctuations than conventional U-ring
- Low friction
- Increased seal stability
- Performs well over wide temperature range and is extremely effective in low temperatures
- Primary lip protection
- 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	Colour
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 +110°C	-50°F +230°F
Maximum Pressure	400 bar	6000 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.

MAXIMUM EXTRUSION GAP			
Pressure bar	160	250	400
Maximum Gap mm	0.60	0.50	0.40
Pressure psi	2400	3750	6000
Maximum Gap in	0.024	0.020	0.016

NOTE

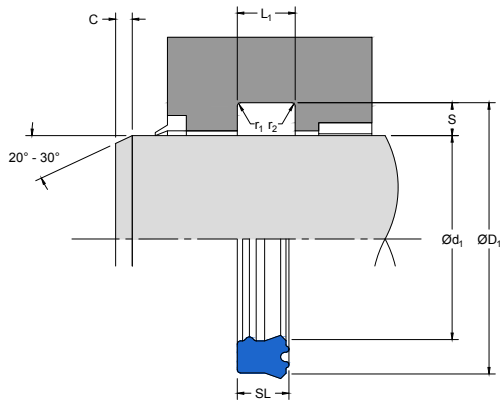
Figures show the maximum permissible gap all on one side, for rod seals using minimum rod \varnothing and maximum clearance \varnothing and for piston seals using the minimum clearance \varnothing and maximum bore \varnothing . Refer to Housing Design section.

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 $<S$ mm	4.00	5.00	7.50
Min Chamfer C mm	3.00	3.50	5.00
Max Fillet Rad r_1 mm	0.20	0.40	0.80
Max Fillet Rad r_2 mm	0.40	0.80	1.20

TOLERANCES	$\varnothing d_1$	$\varnothing D_1$	L_1
Rod mm	f9	Js11	+0.25 -0





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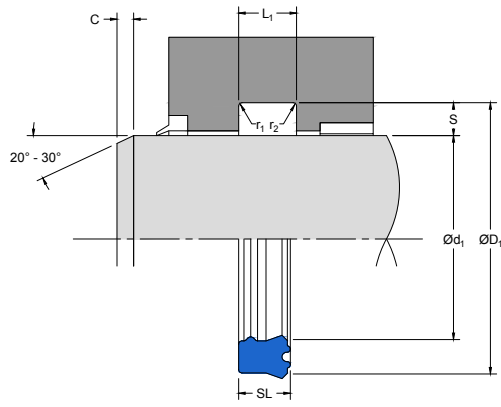
PART NUMBER RANGE

METRIC						
Ød ₁	TOL f9	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
8.00	-0.01 -0.05	16.00	+0.06 -0.06	5.30	6.00	4581000
14.00	-0.02 -0.06	22.00	+0.07 -0.07	5.30	6.00	4580900
18.00	-0.02 -0.06	25.00	+0.07 -0.07	4.60	5.60	4334600‡
20.00	-0.02 -0.07	26.00	+0.07 -0.07	4.50	5.50	4319400
20.00	-0.02 -0.07	28.00	+0.07 -0.07	6.00	7.00	4307500
22.00	-0.02 -0.07	28.00	+0.07 -0.07	4.50	5.50	4356000
22.00	-0.02 -0.07	29.00	+0.07 -0.07	4.60	5.60	4324200‡
22.00	-0.02 -0.07	30.00	+0.07 -0.07	6.00	7.00	4316100
25.00	-0.02 -0.07	33.00	+0.08 -0.08	6.00	7.00	4316200
25.00	-0.02 -0.07	33.00	+0.08 -0.08	8.00	9.00	4299000
28.00	-0.02 -0.07	36.00	+0.08 -0.08	5.30	6.30	4334700‡
28.00	-0.02 -0.07	36.00	+0.08 -0.08	6.00	7.00	4323200
28.00	-0.02 -0.07	36.00	+0.08 -0.08	8.00	9.00	4307700
30.00	-0.02 -0.07	38.00	+0.08 -0.08	6.00	7.00	4308900
30.00	-0.02 -0.07	38.00	+0.08 -0.08	8.00	9.00	4362400
30.00	-0.02 -0.07	40.00	+0.08 -0.08	7.00	8.00	4558300
32.00	-0.03 -0.09	40.00	+0.08 -0.08	6.00	7.00	4316300

NOTE

Part numbers suffixed by "‡" indicate housing sizes to meet ISO 5597.





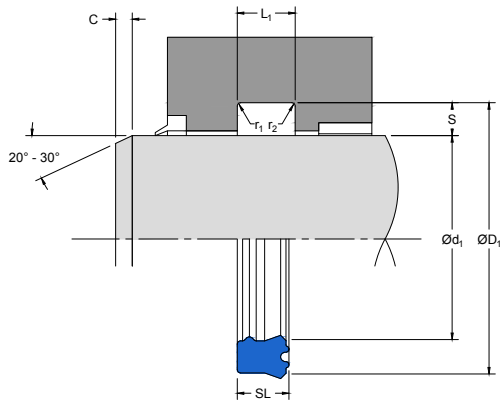
PART NUMBER RANGE

METRIC						
Ød ₁	TOL f ₉	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
35.00	-0.03 -0.09	43.00	+0.08 -0.08	6.00	7.00	4301700
35.00	-0.03 -0.09	43.00	+0.08 -0.08	8.00	9.00	4592800
35.00	-0.03 -0.09	45.00	+0.08 -0.08	10.00	11.00	4299300
36.00	-0.03 -0.09	44.00	+0.08 -0.08	5.30	6.30	4324300‡
36.00	-0.03 -0.09	44.00	+0.08 -0.08	8.00	9.00	4308000
36.00	-0.03 -0.09	46.00	+0.08 -0.08	10.00	11.00	4299400
40.00	-0.03 -0.09	48.00	+0.08 -0.08	5.40	6.40	4329200
40.00	-0.03 -0.09	48.00	+0.08 -0.08	6.50	7.50	4323300
40.00	-0.03 -0.09	48.00	+0.08 -0.08	8.00	9.00	4301800
45.00	-0.03 -0.09	52.00	+0.10 -0.10	10.00	11.00	4330000
45.00	-0.03 -0.09	53.00	+0.10 -0.10	5.30	6.30	4334800‡
45.00	-0.03 -0.09	53.00	+0.10 -0.10	6.00	7.00	4711000
45.00	-0.03 -0.09	53.00	+0.10 -0.10	8.00	9.00	4308100
45.00	-0.03 -0.09	55.00	+0.10 -0.10	10.00	11.00	4389400
50.00	-0.03 -0.09	58.00	+0.10 -0.10	5.30	6.30	4356900
50.00	-0.03 -0.09	58.00	+0.10 -0.10	8.00	9.00	4299100
50.00	-0.03 -0.09	60.00	+0.10 -0.10	10.00	11.00	4389500

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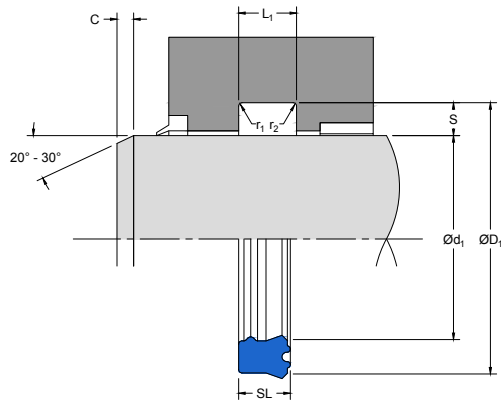
PART NUMBER RANGE

METRIC						
Ød ₁	TOL f9	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
55.00	-0.03 -0.10	63.00	+0.10 -0.10	8.00	9.00	4323000
55.00	-0.03 -0.10	65.00	+0.10 -0.10	7.00	8.00	4385500
55.00	-0.03 -0.10	65.00	+0.10 -0.10	10.00	11.00	4389600
55.00	-0.03 -0.10	65.00	+0.10 -0.10	11.80	13.00	4389700
56.00	-0.03 -0.10	64.00	+0.10 -0.10	8.00	9.00	4316400
56.00	-0.03 -0.10	66.00	+0.10 -0.10	6.80	7.50	4334900‡
60.00	-0.03 -0.10	68.00	+0.10 -0.10	7.00	8.00	4732400
60.00	-0.03 -0.10	68.00	+0.10 -0.10	8.00	9.00	4299200
60.00	-0.03 -0.10	68.00	+0.10 -0.10	11.40	12.50	4329900
60.00	-0.03 -0.10	70.00	+0.10 -0.10	7.00	8.00	4303200
60.00	-0.03 -0.10	70.00	+0.10 -0.10	11.80	13.00	4389800
63.00	-0.03 -0.10	71.00	+0.10 -0.10	8.00	9.00	4316500
63.00	-0.03 -0.10	75.00	+0.10 -0.10	8.60	9.60	4360500
65.00	-0.03 -0.10	73.00	+0.10 -0.10	8.00	9.00	4362500
65.00	-0.03 -0.10	75.00	+0.10 -0.10	11.80	13.00	4389900
70.00	-0.03 -0.10	78.00	+0.10 -0.10	8.00	9.00	4316600
70.00	-0.03 -0.10	80.00	+0.10 -0.10	6.50	7.50	4335000‡

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METRIC						
Ød ₁	TOL f ₉	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
70.00	-0.03 -0.10	80.00	+0.10 -0.10	11.80	13.00	4390000
75.00	-0.03 -0.10	83.00	+0.11 -0.11	8.00	9.00	4539400
80.00	-0.03 -0.10	88.00	+0.11 -0.11	8.00	9.00	4316700
85.00	-0.04 -0.12	97.00	+0.11 -0.11	9.00	10.00	4328100
87.00	-0.04 -0.12	95.00	+0.11 -0.11	8.00	9.00	4323700
90.00	-0.04 -0.12	98.00	+0.11 -0.11	8.00	9.00	4316800
100.00	-0.04 -0.12	108.00	+0.11 -0.11	8.00	9.00	4316900
134.00	-0.04 -0.14	147.00	+0.13 -0.13	12.00	13.30	4588100
175.00	-0.04 -0.14	185.00	+0.14 -0.14	11.80	13.00	4903700

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