

## Rod Seals

### Technical details

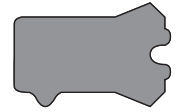
#### Metric

#### Inch

#### Operating conditions

Maximum Speed	1.0 m/sec
Temperature Range	-45°C +110°C
Maximum Pressure	400 bar

3.0 ft/sec
-50°F +230°F
6000 p.s.i.



#### Maximum extrusion gap

Figures show the maximum permissible gap all on one side using minimum rod  $\varnothing$  and maximum clearance  $\varnothing$ .

Pressure bar	160	250	400
Maximum Gap mm	0.6	0.5	0.4
Pressure p.s.i.	2400	3750	6000

#### Surface roughness

	$\mu\text{mRa}$	$\mu\text{mRt}$	$\mu\text{inCLA}$	$\mu\text{inRMS}$
Dynamic Sealing Face $\varnothing d_1$	0.1 <-> 0.4	4 max	4 <-> 16	5 <-> 18
Static Sealing Face $\varnothing D_1$	1.6 max	10 max	63 max	70 max
Static Housing Faces $L_1$	3.2 max	16 max	125 max	140 max

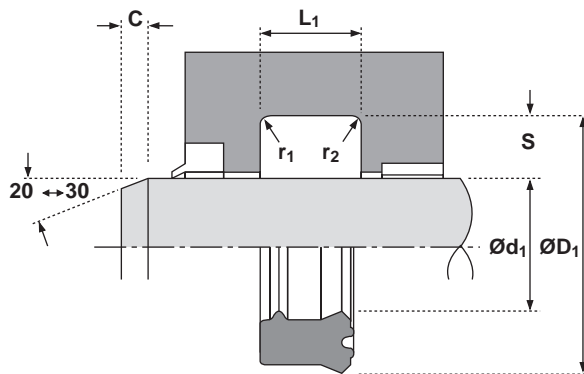
#### Chamfers & Radii

Groove Section $\leq S$ mm	4.0	5.0	7.5
Min Chamfer C mm	3.0	3.5	5.0
Max Fillet Rad $r_1$ mm	0.2	0.4	0.8
Max Fillet Rad $r_2$ mm	0.4	0.8	1.2

#### Tolerances

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

# 610



### Design

The Hallite 610 is an asymmetric "solid" seal offering excellent dry rod sealing for light and medium duty applications.

It is designed to be less sensitive to pressure fluctuations than Hallite 605 'U' ring design.

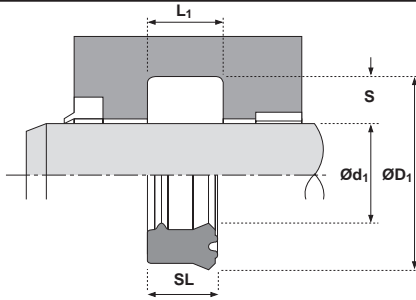
Manufactured in Hallite's high performance polyurethane - Hythane® ~ 181 - the type 610 is an extremely flexible seal making installation very easy.

### Features

- Insensitive to pressure fluctuation.
- Twin lip design offering: lower friction, improved sealing, primary lip protection, increased seal stability.

**NB:** Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.

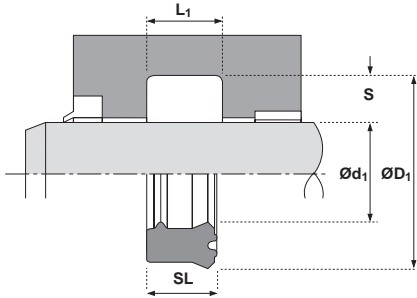
# 610



$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL Js11	SL	$L_1$ +0.25-0	PART No.
8	-0.013 -0.049	16	+0.06 -0.06	5.3	6.0	4581000
14	-0.016 -0.059	22	+0.07 -0.07	5.3	6.0	4580900
18	-0.016 -0.059	25	+0.07 -0.07	4.6	5.6	4334600‡
20	-0.020 -0.072	26	+0.07 -0.07	4.5	5.5	4319400
20	-0.020 -0.072	28	+0.07 -0.07	6.0	7.0	4307500
22	-0.020 -0.072	28	+0.07 -0.07	4.5	5.5	4356000
22	-0.020 -0.072	29	+0.07 -0.07	4.6	5.6	4324200‡
22	-0.020 -0.072	30	+0.07 -0.07	6.0	7.0	4316100
25	-0.020 -0.072	33	+0.08 -0.08	6.0	7.0	4316200
25	-0.020 -0.072	33	+0.08 -0.08	8.0	9.0	4299000
28	-0.020 -0.072	36	+0.08 -0.08	5.3	6.3	4334700‡
28	-0.020 -0.072	36	+0.08 -0.08	6.0	7.0	4323200
28	-0.020 -0.072	36	+0.08 -0.08	8.0	9.0	4307700
30	-0.020 -0.072	38	+0.08 -0.08	6.0	7.0	4308900
30	-0.020 -0.072	38	+0.08 -0.08	8.0	9.0	4362400
30	-0.020 -0.072	40	+0.08 -0.08	7.0	8.0	4558300
32	-0.025 -0.087	40	+0.08 -0.08	6.0	7.0	4316300
35	-0.025 -0.087	43	+0.08 -0.08	6.0	7.0	4301700
35	-0.025 -0.087	43	+0.08 -0.08	8.0	9.0	4592800
35	-0.025 -0.087	45	+0.08 -0.08	10.0	11.0	4299300

$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL Js11	SL	$L_1$ +0.25-0	PART No.
36	-0.025 -0.087	44	+0.08 -0.08	5.3	6.3	4324300‡
36	-0.025 -0.087	44	+0.08 -0.08	8.0	9.0	4308000
36	-0.025 -0.087	46	+0.08 -0.08	10.0	11.0	4299400
40	-0.025 -0.087	48	+0.08 -0.08	5.4	6.4	4329200
40	-0.025 -0.087	48	+0.08 -0.08	6.5	7.5	4323300
40	-0.025 -0.087	48	+0.08 -0.08	8.0	9.0	4301800
45	-0.025 -0.087	52	+0.10 -0.10	10.0	11.0	4330000
45	-0.025 -0.087	53	+0.10 -0.10	5.3	6.3	4334800‡
45	-0.025 -0.087	53	+0.10 -0.10	6.0	7.0	4711000
45	-0.025 -0.087	53	+0.10 -0.10	8.0	9.0	4308100
45	-0.025 -0.087	55	+0.10 -0.10	10.0	11.0	4389400
50	-0.025 -0.087	58	+0.10 -0.10	5.3	6.3	4356900
50	-0.025 -0.087	58	+0.10 -0.10	8.0	9.0	4299100
50	-0.025 -0.087	60	+0.10 -0.10	10.0	11.0	4389500
55	0.030 -0.104	63	+0.10 -0.10	8.0	9.0	4323000
55	-0.030 -0.104	65	+0.10 -0.10	7.0	8.0	4385500
55	-0.030 -0.104	65	+0.10 -0.10	10.0	11.0	4389600
55	-0.030 -0.104	65	+0.10 -0.10	11.8	13.0	4389700
56	-0.030 -0.104	64	+0.10 -0.10	8.0	9.0	4316400
56	-0.030 -0.104	66	+0.10 -0.10	6.8	7.5	4334900‡

# 610



Ød <sub>1</sub>	TOL f9	ØD <sub>1</sub>	TOL Js11	SL	L <sub>1</sub> +0.25-0	PART No.
60	-0.030 -0.104	68	+0.10 -0.10	7.0	8.0	4732400
60	-0.030 -0.104	68	+0.10 -0.10	8.0	9.0	4299200
60	-0.030 -0.104	68	+0.10 -0.10	11.4	12.5	4329900
60	-0.030 -0.104	70	+0.10 -0.10	7.0	8.0	4303200
60	-0.030 -0.104	70	+0.10 -0.10	11.8	13.0	4389800
63	-0.030 -0.104	71	+0.10 -0.10	8.0	9.0	4316500
63	-0.030 -0.104	75	+0.10 -0.10	8.6	9.6	4360500
65	-0.030 -0.104	73	+0.10 -0.10	8.0	9.0	4362500
65	-0.030 -0.104	75	+0.10 -0.10	11.8	13.0	4389900
70	-0.030 -0.104	78	+0.10 -0.10	8.0	9.0	4316600

Ød <sub>1</sub>	TOL f9	ØD <sub>1</sub>	TOL Js11	SL	L <sub>1</sub> +0.25-0	PART No.
70	-0.030 -0.104	80	+0.10 -0.10	6.5	7.5	4335000‡
70	-0.030 -0.104	80	+0.10 -0.10	11.8	13.0	4390000
75	-0.030 -0.104	83	+0.10 -0.10	8.0	9.0	4539400
80	-0.030 -0.104	88	+0.11 -0.10	8.0	9.0	4316700
85	-0.036 -0.123	97	+0.11 -0.11	9.0	10.0	4328100
87	-0.036 -0.123	95	+0.11 -0.11	8.0	9.0	4323700
90	-0.036 -0.123	98	+0.11 -0.11	8.0	9.0	4316800
100	-0.036 -0.123	108	+0.11 -0.11	8.0	9.0	4316900
134	-0.043 -0.143	147	+0.13 -0.13	12.0	13.3	4588100