

622

ROD SEAL

Twin Lip

Polyurethane with Profiled Rubber Energizer

DESIGN

The Hallite 622 is a top-of-the-range twin lip rod seal designed to provide a dry sealing solution in light and medium-duty applications.

The secondary sealing lip located behind the primary sealing lip improves stability of the seal in the gland. The unique profile of the NBR energizer ensures the precision trimmed primary sealing lips maintain contact under low or no pressure situations while ensuring proper sealing at higher pressures.

This unique profile is also used in the Hallite 621 twin lip rod seal. In rod applications, the Hallite 622 provides a twin lip alternative to the Hallite 500 Series (Hallite 511, 512, 513), in particular the Hallite 513 rod/piston seal range.

The Hallite 622's seal shell is molded in Hythane® 181, Hallite's high-performance polyurethane, for easy installation and excellent low temperature performance. The Hallite 622 is also offered in other high quality Hythane® materials to match the needs of the application.



FEATURES

- Low temperature capabilities
- Improved shock handling
- Low friction
- Increased seal stability
- Primary lip protection
- Easy to install

MATERIALS

As standard, this product comes in the following materials. 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	Shell Type	Shell Color
Standard	Hythane® 181-NBR	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

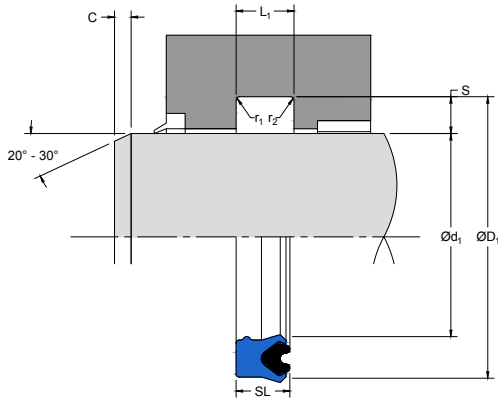
NOTE

Figures show the maximum permissible gap all on one side using minimum rod \varnothing and maximum clearance \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 $\leq S$ mm	4.00	5.00	7.50	10.00	12.50	15.00
Min Chamfer C mm	3.00	3.50	5.00	6.50	7.00	8.00
Max Fillet Rad r_1 mm	0.20	0.40	0.80	0.80	1.20	1.60
Max Fillet Rad r_2 mm	0.40	0.80	1.20	1.20	1.60	2.40
Groove Section $\leq S$ in	0.125	0.187	0.250	0.312	0.375	0.500
Min Chamfer C in	0.093	0.093	0.125	0.156	0.187	0.217
Max Fillet Rad r_1 in	0.008	0.008	0.016	0.032	0.032	0.032
Max Fillet Rad r_2 in	0.016	0.016	0.032	0.047	0.047	0.047

TOLERANCES	$\varnothing D_1$	$\varnothing d_1$	L_1
mm	f9	Js11	+0.25 -0
in	f9	Js11	+0.010 -0



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PART NUMBER RANGE

INCH						
$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL Js11	SL	L_1 +0.010-0	PART No.
1.500	-0.001 -0.003	1.875	+0.003 -0.003	0.312	0.344	8904010
1.500	-0.001 -0.003	2.000	+0.004 -0.004	0.375	0.413	8904110
1.750	-0.001 -0.003	2.125	+0.004 -0.004	0.375	0.413	8904210
1.750	-0.001 -0.003	2.250	+0.004 -0.004	0.375	0.413	8904310
2.000	-0.001 -0.004	2.500	+0.004 -0.004	0.375	0.413	8904410
2.250	-0.001 -0.004	2.750	+0.004 -0.004	0.375	0.413	8906310
2.500	-0.001 -0.004	3.000	+0.004 -0.004	0.375	0.413	8904510
2.750	-0.001 -0.004	3.250	+0.004 -0.004	0.375	0.413	8904910
3.000	-0.001 -0.004	3.500	+0.004 -0.004	0.375	0.413	8906410
3.500	-0.001 -0.005	4.000	+0.004 -0.004	0.375	0.413	8905010
4.000	-0.001 -0.005	4.500	+0.004 -0.004	0.375	0.413	8906510
4.500	-0.001 -0.005	5.000	+0.005 -0.005	0.375	0.413	8906610