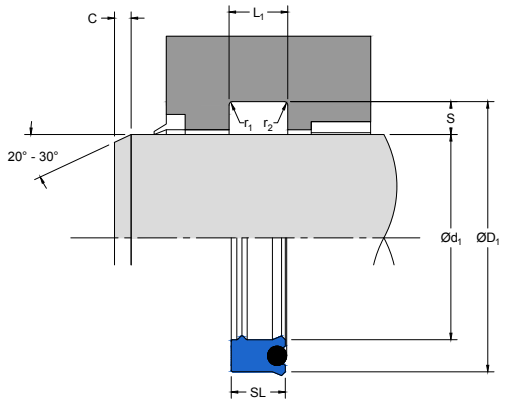


620

ROD SEAL

Twin Lip
Polyurethane with O-Ring Energizer

DESIGN

The Hallite 620 is a twin lip rod seal designed with precision trimmed sealing lips to provide a dry sealing solution in light and medium-duty application. The seal is manufactured in a polyurethane shell energized by a high quality O-ring. The sealing lips are trimmed at an angle to give optimal rod sealing performance.

Like the Hallite 621 rod seal, the Hallite 620 is designed to have an interference in the seal housing groove and a secondary lip. The secondary sealing lip located behind the primary sealing lip improves stability of the seal in the gland. At zero or low pressure, the O-ring helps to increase the sealing force preventing any bypass. Under most conditions as the pressure rises, the sealing force increases and the O-ring ensures complete lip actuation. Together these features result in improved life and sealing.

In rod applications, the Hallite 620 provides a twin lip alternative to Hallite's 511, 512, and particularly the 513 rod/piston seals.

The Hallite 620's seal shell is molded in Hythane® 181, Hallite's high-performance polyurethane, for easy installation and excellent low temperature performance. The Hallite 620 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

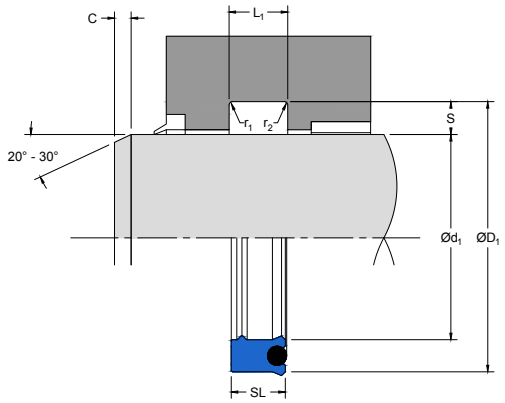
NOTE

Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø. Refer to Housing Design section.

SURFACE ROUGHNESS	µmRa	µmRz	µmRt	µinRa	µinRz	µinRt
Dynamic Sealing Face $Ød_1$	0.1 - 0.4	1.6 max	4 max	4 - 16	63 max	157 max
Static Sealing Face $ØD_1$	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

RADII		
Groove Section ≤ S in	0.125	0.187
Min Chamfer C in	0.093	0.093
Max Fillet Rad r_1 in	0.008	0.008
Max Fillet Rad r_2 in	0.016	0.016

TOLERANCES	$ØD_1$	$Ød_1$	L_1
in	f9	Js11	+0.010 -0



620

ROD SEAL

Twin Lip
Polyurethane with O-Ring Energizer

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	0.160	0.176	4498600
0.625	-0.001 -0.002	0.875	+0.003 -0.003	0.175	0.190	4528700
0.625	-0.001 -0.002	0.875	+0.003 -0.003	0.250	0.275	4459900
0.750	-0.001 -0.003	1.000	+0.003 -0.003	0.187	0.207	4583900
0.750	-0.001 -0.003	1.000	+0.003 -0.003	0.250	0.275	4498500
0.875	-0.001 -0.003	1.125	+0.003 -0.003	0.187	0.207	4709100
1.000	-0.001 -0.003	1.240	+0.003 -0.003	0.187	0.217	4477200
1.000	-0.001 -0.003	1.250	+0.003 -0.003	0.187	0.197	4457500
1.000	-0.001 -0.003	1.250	+0.003 -0.003	0.250	0.275	4498400
1.000	-0.001 -0.003	1.375	+0.003 -0.003	0.250	0.275	4410400
1.000	-0.001 -0.003	1.375	+0.003 -0.003	0.312	0.344	4584000
1.125	-0.001 -0.003	1.375	+0.003 -0.003	0.250	0.275	4461100
1.125	-0.001 -0.003	1.500	+0.003 -0.003	0.250	0.275	4410500
1.250	-0.001 -0.003	1.500	+0.003 -0.003	0.187	0.207	4398900
1.250	-0.001 -0.003	1.500	+0.003 -0.003	0.250	0.275	4461000
1.250	-0.001 -0.003	1.625	+0.003 -0.003	0.312	0.344	4410600
1.375	-0.001 -0.003	1.750	+0.003 -0.003	0.312	0.344	4410700
1.500	-0.001 -0.003	1.875	+0.003 -0.003	0.375	0.413	4750600
1.750	-0.001 -0.003	2.125	+0.004 -0.004	0.375	0.413	4460000
2.000	-0.001 -0.004	2.500	+0.004 -0.004	0.250	0.275	8907600

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.