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ROD SEAL

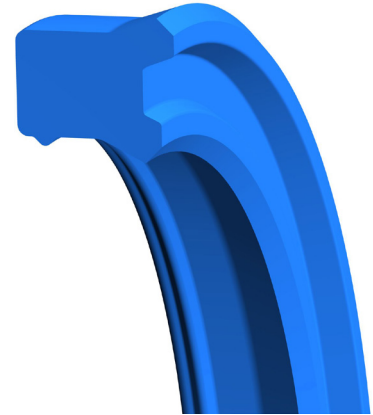
*Twin Lip
Polyurethane*

DESIGN

The Hallite 658 asymmetric 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 Hallite 658 is designed to replace an O-ring and one backup sealing arrangement and offer a much higher level of sealing performance and durability without having to change the seal groove.

The Hallite 658 is molded in Hythane® 181, Hallite's high-performance polyurethane, for easy installation and excellent low temperature performance. The Hallite 658 is also offered in other high quality Hythane® materials to match the needs of the application.



FEATURES

- Replaces O-ring and backup in same groove
- Low friction
- Improved sealing
- Increased seal stability
- 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	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 +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

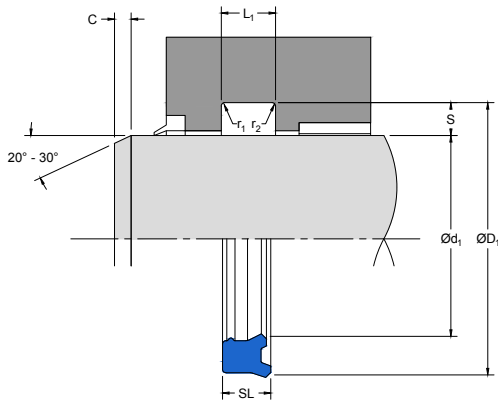
NOTE

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 $\leq S$ 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
Max Fillet Rad r_2 in	0.016	0.016	0.032

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



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PART NUMBER RANGE

INCH						
Ød ₁	TOL f ₉	ØD ₁	TOL Js ₁₁	SL	L ₁ +0.010-0	PART No.
0.750	-0.001 -0.003	0.937	+0.003 -0.003	0.156	0.172	4472400
0.875	-0.001 -0.003	1.125	+0.003 -0.003	0.187	0.207	4527500
1.000	-0.001 -0.003	1.250	+0.003 -0.003	0.187	0.207	4569000
1.062	-0.001 -0.003	1.302	+0.003 -0.003	0.187	0.207	4549400
1.125	-0.001 -0.003	1.367	+0.003 -0.003	0.187	0.207	4466200
1.250	-0.001 -0.003	1.490	+0.003 -0.003	0.197	0.217	4359610
1.250	-0.001 -0.003	1.625	+0.003 -0.003	0.375	0.413	4747600
1.375	-0.001 -0.003	1.615	+0.003 -0.003	0.197	0.217	4392210
1.375	-0.001 -0.003	1.750	+0.003 -0.003	0.375	0.413	4747700
1.500	-0.001 -0.003	1.740	+0.003 -0.003	0.187	0.207	4480600
1.500	-0.001 -0.003	1.875	+0.003 -0.003	0.295	0.324	4386020
1.500	-0.001 -0.003	1.875	+0.003 -0.003	0.375	0.413	4747800
1.750	-0.001 -0.003	2.118	+0.004 -0.004	0.283	0.311	4456200
1.875	-0.001 -0.003	2.246	+0.004 -0.004	0.281	0.311	4576700
2.000	-0.001 -0.004	2.370	+0.004 -0.004	0.281	0.311	4466300
2.500	-0.001 -0.004	2.871	+0.004 -0.004	0.281	0.311	4576800