

673

ROD SEAL

Single Lip
Polyurethane

DESIGN

The Hallite 673 is an asymmetric, single lip U-ring rod seal designed to provide a dry sealing solution in light and medium-duty applications. The seal can be considered for use in heavy-duty applications when used with a suitable full depth back-up ring. The seal profile has been developed to minimise friction and improve back pumping capability when used with a double-lipped wiper such as Hallite 839N, 844, and 864.

The standard material for the the Hallite 673 is Hythane® 591 which we recommend for heavier duty and earthmoving applications. As alternative, the seal is available in Hythane® 181 for easy installation and excellent low temperature performance.

The seal is ideal for applications that require a double-lipped wiper, such as the Hallite 839, Hallite 844, or Hallite 864.



FEATURES

- Good back pumping capability prevents pressure build up between seal and double-lipped wiper
- Robust design
- Low friction
- Excellent wear resistance
- Performs well over wide temperature range and is extremely effective in low temperatures
- Easy to install

MATERIALS

This product comes in a number of material options to extend operating conditions. Contact your local Hallite technical team to decide which is best for your application. Use the part designator in the table below as the last digit of the part number to specify material choice when ordering. For further material details, please refer to the Hallite Material Table.

MATERIAL OPTIONS	Name	Type	Colour	Part Designator
Standard	Hythane® 591	TPU-AU	Orange	8
Optional	Hythane® 181	TPU-EU	Blue	0



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
Maximum Pressure with Backup Ring	700 bar	10000 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.

NOTE

Pressure Rating: Can be extended with use of backup ring. Seek technical advice from local Hallite office.

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

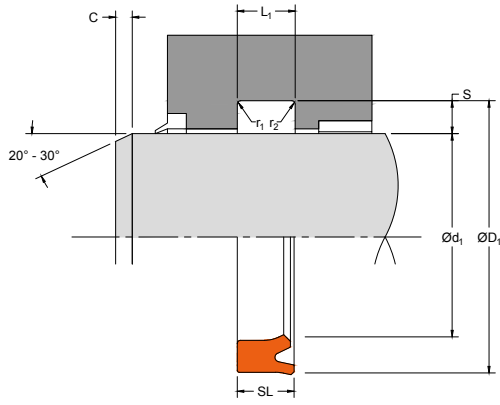
Figures show the maximum permissible gap all on one side using minimum rod \varnothing and maximum clearance \varnothing . Refer to Housing Design section.

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 $<S$ mm	4.00	5.00	7.50	10.00
Min Chamfer C mm	3.00	3.50	5.00	6.50
Max Fillet Rad r_1 mm	0.20	0.40	0.80	0.80
Max Fillet Rad r_2 mm	0.40	0.80	1.20	1.20

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





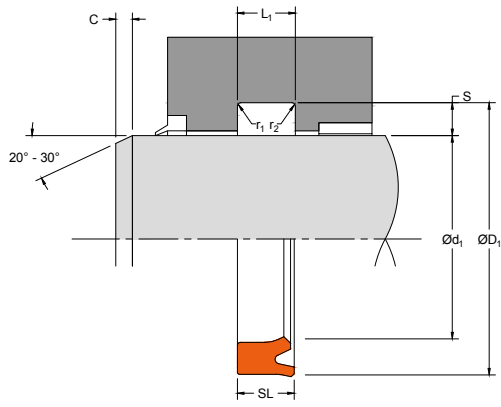
673

ROD SEAL

Single Lip
Polyurethane

PART NUMBER RANGE

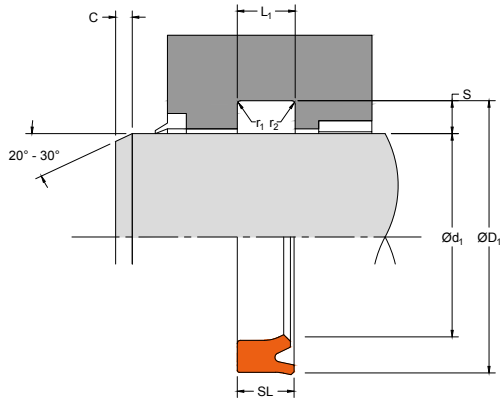
METRIC						
Ød ₁	TOL f9	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
30.00	-0.02 -0.07	43.00	+0.08 -0.08	10.00	11.00	4622108
30.00	-0.02 -0.07	45.00	+0.08 -0.08	10.00	11.00	4622208
32.00	-0.03 -0.09	42.00	+0.08 -0.08	6.00	7.00	4622308
35.00	-0.03 -0.09	45.00	+0.08 -0.08	6.00	7.00	4622408
35.00	-0.03 -0.09	50.00	+0.08 -0.08	10.00	11.00	4622508
40.00	-0.03 -0.09	50.00	+0.08 -0.08	6.00	7.00	4622608
40.00	-0.03 -0.09	50.00	+0.08 -0.08	9.00	10.00	4622708
40.00	-0.03 -0.09	55.00	+0.10 -0.10	10.00	11.00	4622808
45.00	-0.03 -0.09	55.00	+0.10 -0.10	6.00	7.00	4622908
50.00	-0.03 -0.09	60.00	+0.10 -0.10	8.00	9.00	4623008
50.00	-0.03 -0.09	63.00	+0.10 -0.10	9.00	10.00	4623108
50.00	-0.03 -0.09	65.00	+0.10 -0.10	10.00	11.00	4623208
55.00	-0.03 -0.10	65.00	+0.10 -0.10	8.00	9.00	4623508
55.00	-0.03 -0.10	68.00	+0.10 -0.10	10.00	11.00	4623608
55.00	-0.03 -0.10	70.00	+0.10 -0.10	9.00	10.00	4623708
55.00	-0.03 -0.10	70.00	+0.10 -0.10	10.00	11.00	4623808
60.00	-0.03 -0.10	73.00	+0.10 -0.10	10.00	11.00	4623908
60.00	-0.03 -0.10	75.00	+0.10 -0.10	9.00	10.00	4624008



PART NUMBER RANGE

METRIC						
Ød ₁	TOL f ₉	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
60.00	-0.03 -0.10	75.00	+0.10 -0.10	10.00	11.00	4624108
63.00	-0.03 -0.10	78.00	+0.10 -0.10	10.00	11.00	4623408
65.00	-0.03 -0.10	78.00	+0.10 -0.10	10.00	11.00	4624208
65.00	-0.03 -0.10	80.00	+0.10 -0.10	9.00	10.00	4624308
65.00	-0.03 -0.10	80.00	+0.10 -0.10	10.00	11.00	4624408
70.00	-0.03 -0.10	83.00	+0.11 -0.11	10.00	11.00	4624508
70.00	-0.03 -0.10	85.00	+0.11 -0.11	9.00	10.00	4624608
75.00	-0.03 -0.10	88.00	+0.11 -0.11	10.00	11.00	4624708
75.00	-0.03 -0.10	90.00	+0.11 -0.11	9.00	10.00	4624808
75.00	-0.03 -0.10	90.00	+0.11 -0.11	10.00	11.00	4624908
80.00	-0.03 -0.10	93.00	+0.11 -0.11	10.00	11.00	4626508
80.00	-0.03 -0.10	95.00	+0.11 -0.11	9.00	10.00	4626608
80.00	-0.03 -0.10	95.00	+0.11 -0.11	10.00	11.00	4626708
80.00	-0.03 -0.10	100.00	+0.11 -0.11	12.00	13.00	4626808
85.00	-0.04 -0.12	100.00	+0.11 -0.11	9.00	10.00	4626908
85.00	-0.04 -0.12	100.00	+0.11 -0.11	10.00	11.00	4627008
85.00	-0.04 -0.12	105.00	+0.11 -0.11	12.00	13.00	4627108
90.00	-0.04 -0.12	105.00	+0.11 -0.11	9.00	10.00	4627208





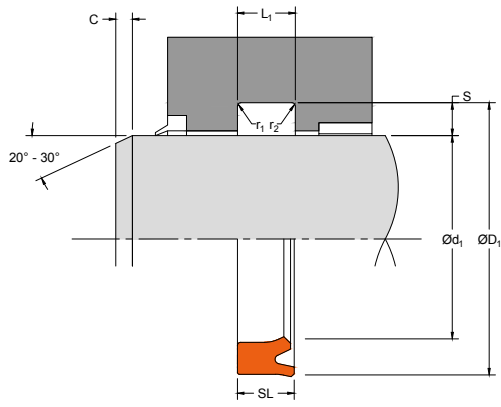
673

ROD SEAL

Single Lip
Polyurethane

PART NUMBER RANGE

METRIC						
Ød ₁	TOL f9	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
90.00	-0.04 -0.12	105.00	+0.11 -0.11	10.00	11.00	4627308
90.00	-0.04 -0.12	110.00	+0.11 -0.11	12.00	13.00	4627408
95.00	-0.04 -0.12	110.00	+0.11 -0.11	9.00	10.00	4627508
95.00	-0.04 -0.12	110.00	+0.11 -0.11	10.00	11.00	4627608
95.00	-0.04 -0.12	115.00	+0.11 -0.11	12.00	13.00	4627708
100.00	-0.04 -0.12	115.00	+0.11 -0.11	9.00	10.00	4627808
100.00	-0.04 -0.12	115.00	+0.11 -0.11	10.00	11.00	4627908
100.00	-0.04 -0.12	120.00	+0.11 -0.11	12.00	13.00	4628008
105.00	-0.04 -0.12	120.00	+0.11 -0.11	9.00	10.00	4628108
105.00	-0.04 -0.12	120.00	+0.11 -0.11	10.00	11.00	4628208
105.00	-0.04 -0.12	125.00	+0.13 -0.13	12.00	13.00	4628308
110.00	-0.04 -0.12	125.00	+0.13 -0.13	9.00	10.00	4628408
110.00	-0.04 -0.12	125.00	+0.13 -0.13	10.00	11.00	4628508
110.00	-0.04 -0.12	130.00	+0.13 -0.13	12.00	13.00	4628608
115.00	-0.04 -0.12	130.00	+0.13 -0.13	9.00	10.00	4628708
115.00	-0.04 -0.12	135.00	+0.13 -0.13	12.00	13.00	4628808
115.00	-0.04 -0.12	135.00	+0.13 -0.13	15.00	16.00	4628908
120.00	-0.04 -0.12	135.00	+0.13 -0.13	9.00	10.00	4623308



PART NUMBER RANGE

METRIC						
Ød ₁	TOL f9	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
120.00	-0.04 -0.12	140.00	+0.13 -0.13	12.00	13.00	4629008
125.00	-0.04 -0.14	145.00	+0.13 -0.13	12.00	13.00	4629108
130.00	-0.04 -0.14	150.00	+0.13 -0.13	16.00	17.00	4629208

