

520

WIPER

Single-Lipped
TPU/TPE Designed for D Style Housings

DESIGN

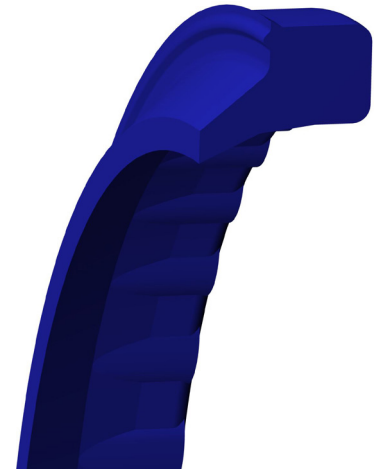
The Hallite 520 single-lipped, snap-in rod wiper is designed to fit North American D-style housings. The proportions of the wiping lip ensure that contact is maintained with the surface of the rod to remove heavily deposited contaminants such as mud and ice.

The outside diameter of the wiper incorporates a crush lip to provide an interference fit with the housing and a face bead to ensure that the crush lip is not trapped in the corner of the housing. These features help prevent contamination from entering the groove.

The molded ribs on the internal diameter provide extra stability to the wiper and help prevent the possibility of blow-out due to pressure trapping between the wiper and the main rod seal.

The standard Hallite 520 is molded in polyurethane for maximum wear resistance and performance. For heavy duty and more complex applications, it is also offered in a wide range of Hythane® polyurethane and polyester materials to provide the best ingress protection.

In harsher environments with heavy contamination, the Hallite technical team may advise you to use a Hallite 820 wiper for better debris ingress protection.



FEATURES

- Crush lip and face bead design provides effective seal on housing
- Design offers best-in-class ingress protection
- Ribs relieve pressure and improve stability

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	Seal Shell	Seal Color	Part Designator
Standard	Hythane® 251	TPU-EU	Dark Blue	0
Optional	TPE 121	TPE	Orange	1
Optional	Hythane® 361	TPU-AU	Orange	6

TECHNICAL DETAILS

OPERATING CONDITIONS	METRIC	INCH
Maximum Speed	4.0 m/sec	12.0 ft/sec
Temperature Range	-45°C +110°C	-50°F +230°F

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.

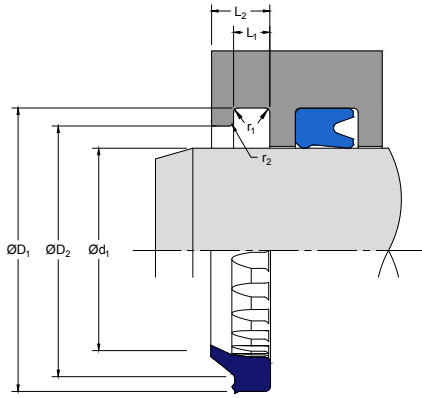
SURFACE ROUGHNESS	μmRa	μmRz	μmRt	μinRa	μinRz	μinRt
Dynamic Sealing Face $\varnothing d_1$	0.1 - 0.4	1.6 max	4 max	4 - 16	63 max	157 max
Static Sealing Face $\varnothing D_1, \varnothing D_2$	1.6 max	6.3 max	10 max	63 max	250 max	394 max
Static Housing Faces L_1	3.2 max	10 max	16 max	125 max	394 max	630 max

RADII	
Max Fillet Rad r_1 in	0.016
Max Fillet Rad r_2 in	0.016

NOTE

Assembly chamfers are governed by the associated rod seal.

TOLERANCES	$\varnothing d_1$	$\varnothing D_1$	$\varnothing D_2$	L_1
in	f9	± 0.003	± 0.005	+0.004 -0



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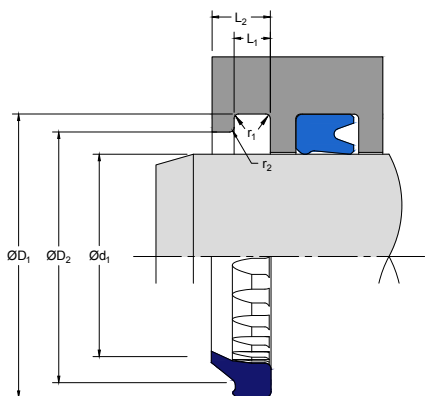
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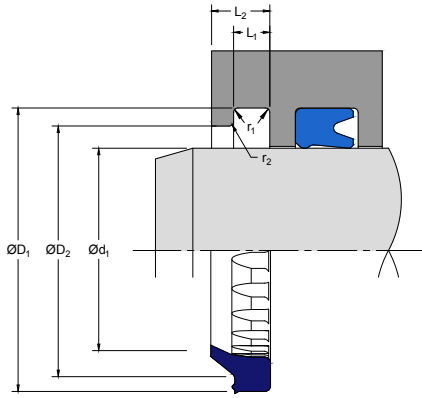
PART NUMBER RANGE

INCH						
$\text{Ø}d_1$	TOL f9	$\text{Ø}D_1$ ± 0.003	$\text{Ø}D_2$ ± 0.005	L_1 $+0.004-0$	L_2	PART No.
0.375	-0.001 -0.002	0.625	0.540	0.125	0.187	8889010
0.500	-0.001 -0.002	0.750	0.665	0.125	0.187	8880210
0.563	-0.001 -0.002	0.844	0.736	0.125	0.187	8888910
0.625	-0.001 -0.002	0.875	0.790	0.125	0.187	8880310
0.750	-0.001 -0.003	1.125	1.000	0.187	0.281	8880410
0.875	-0.001 -0.003	1.250	1.125	0.187	0.281	8880510
1.000	-0.001 -0.003	1.375	1.250	0.187	0.281	8880610
1.125	-0.001 -0.003	1.500	1.375	0.187	0.281	8880710
1.187	-0.001 -0.003	1.562	1.437	0.187	0.281	8880810
1.250	-0.001 -0.003	1.625	1.500	0.187	0.281	8880910
1.375	-0.001 -0.003	1.750	1.625	0.187	0.281	8881110
1.500	-0.001 -0.003	1.875	1.750	0.187	0.281	8881210
1.625	-0.001 -0.003	2.000	1.875	0.187	0.281	8881310
1.750	-0.001 -0.003	2.125	2.000	0.187	0.281	8881410
1.875	-0.001 -0.003	2.250	2.125	0.187	0.281	8887410
2.000	-0.001 -0.004	2.500	2.332	0.250	0.375	8881510
2.250	-0.001 -0.004	2.750	2.582	0.250	0.375	8881610



PART NUMBER RANGE

INCH						
Ød ₁	TOL f9	ØD ₁ ±0.003	ØD ₂ ±0.005	L ₁ +0.004-0	L ₂	PART No.
2.375	-0.001 -0.004	2.875	2.707	0.250	0.375	8887210
2.500	-0.001 -0.004	3.000	2.832	0.250	0.375	8881710
2.625	-0.001 -0.004	3.125	2.957	0.250	0.375	4879400
2.750	-0.001 -0.004	3.250	3.082	0.250	0.375	8881810
3.000	-0.001 -0.004	3.500	3.332	0.250	0.375	8881910
3.250	-0.001 -0.005	3.750	3.582	0.250	0.375	8882010
3.500	-0.001 -0.005	4.000	3.832	0.250	0.375	8882110
3.750	-0.001 -0.005	4.250	4.082	0.250	0.375	8882210
3.875	-0.001 -0.005	4.375	4.207	0.250	0.375	8888810
4.000	-0.001 -0.005	4.500	4.332	0.250	0.375	8882310
4.250	-0.001 -0.005	4.750	4.582	0.250	0.375	8882410
4.500	-0.001 -0.005	5.000	4.832	0.250	0.375	8887510
4.500	-0.001 -0.005	5.250	4.998	0.375	0.562	8882510
4.750	-0.002 -0.006	5.500	5.248	0.375	0.562	8887310
4.875	-0.002 -0.006	5.625	5.373	0.375	0.562	8881010
5.000	-0.002 -0.006	5.500	5.332	0.250	0.375	8887910
5.000	-0.002 -0.006	5.750	5.498	0.375	0.562	8882610



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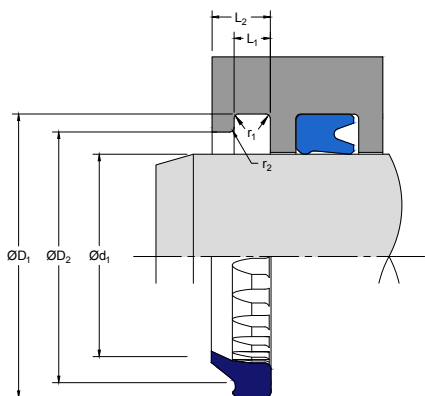
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INCH						
$\text{Ø}d_1$	TOL f9	$\text{Ø}D_1$ ± 0.003	$\text{Ø}D_2$ ± 0.005	L_1 $+0.004-0$	L_2	PART No.
5.250	-0.002 -0.006	6.000	5.748	0.375	0.562	8882710
5.500	-0.002 -0.006	6.250	5.998	0.375	0.562	8882810
5.750	-0.002 -0.006	6.500	6.248	0.375	0.562	8889210
5.875	-0.002 -0.006	6.625	6.373	0.375	0.562	8887010
6.000	-0.002 -0.006	6.500	6.332	0.250	0.375	8888010
6.000	-0.002 -0.006	6.750	6.498	0.375	0.562	8882910
6.500	-0.002 -0.006	7.250	6.998	0.375	0.562	8892510
7.000	-0.002 -0.006	7.500	7.332	0.250	0.375	8888310
7.000	-0.002 -0.006	7.750	7.498	0.375	0.562	8883210
7.500	-0.002 -0.006	8.250	7.998	0.375	0.562	8883110
8.000	-0.002 -0.006	8.750	8.498	0.375	0.562	8883310
8.125	-0.002 -0.006	8.625	8.457	0.250	0.375	8888410
8.250	-0.002 -0.006	9.000	8.748	0.375	0.562	8892410
8.500	-0.002 -0.006	9.250	8.998	0.375	0.562	8888510
9.000	-0.002 -0.006	9.750	9.498	0.375	0.562	8884510
9.375	-0.002 -0.006	9.875	9.707	0.250	0.375	8889110
9.500	-0.002 -0.006	10.250	9.998	0.375	0.562	8885210



PART NUMBER RANGE

INCH						
$\text{Ø}d_1$	TOL f9	$\text{Ø}D_1$ ± 0.003	$\text{Ø}D_2$ ± 0.005	L_1 $+0.004-0$	L_2	PART No.
10.000	-0.002 -0.007	11.000	10.664	0.500	0.750	8889610
11.000	-0.002 -0.007	11.750	11.498	0.375	0.562	8891310
11.000	-0.002 -0.007	12.000	11.664	0.500	0.750	8909010
12.000	-0.002 -0.007	13.000	12.664	0.500	0.750	8888610
14.000	-0.003 -0.008	15.000	14.664	0.500	0.750	8888710
15.000	-0.003 -0.008	16.000	15.664	0.500	0.750	8889810