

Wipers

Technical details

Operating conditions

	Metric	Inch
Maximum Speed	4.0 m/sec	12.0 ft/sec
Temperature Range	-30°C +100°C	-22°F +212°F

Surface roughness

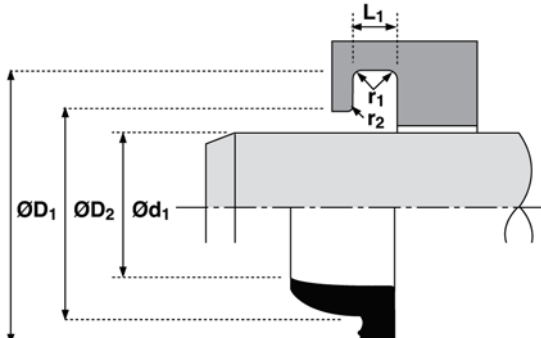
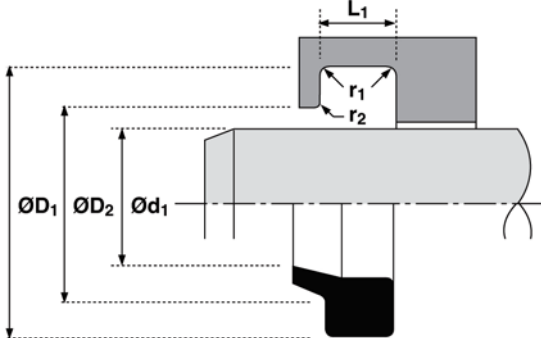
	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face Ød ₁	0.1 <-> 0.4	4 max	4 <-> 16	5 <-> 18
Static Sealing Face ØD ₁ ØD ₂	2.5 max	16 max	100 max	111 max
Static Housing Faces L ₁	2.5 max	16 max	100 max	111 max

Radii

	≤ 50	≤ 90	≤ 200	> 200
Rod Diameter Ød ₁ mm	≤ 50	≤ 90	≤ 200	> 200
Max Fillet Rad r ₁ mm	0.4	0.4	0.4	0.8
Max Fillet Rad r ₂ mm	0.2	0.4	0.6	0.8
Rod Diameter Ød ₁ in	all			
Max Fillet Rad r ₁ in	0.010			
Max Fillet Rad r ₂ in	0.020			

Tolerances

	Ød ₁	ØD ₁	ØD ₂	L ₁
mm	f9	H11	H11	+0.2 -0
in	f9	+0.020 +0.010	±0.005	+0.020 +0.010



Design

The Hallite 33 wiper has a lip designed to remove lightly adhered dirt from the rod i.e. mud, dust or moisture.

The wiper is manufactured from a hard nitrile rubber suitable for installing in a grooved housing. Rod diameters (Ød1) of 20mm and below require a two piece housing .

To prevent dirt passing the outside of the wiper and to reduce the pumping action, the outside diameter is an interference fit with the housing. Certain sizes of the standard Hallite 33 metric range are suitable for ISO 6195 Housing Type A.

It should also be noted that the Hallite 33 inch profile differs from the metric profile.

Features

- General purpose wiper
- Wide size ranges
- Effective seal on housing as well as rod

NB: Part numbers suffixed by "‡" indicate housing sizes to meet ISO6195A. Many of the metric sizes are also available as polyester wipers – see Hallite 38.

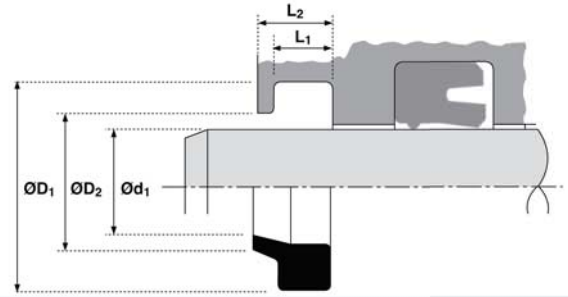


METRIC **INCH**

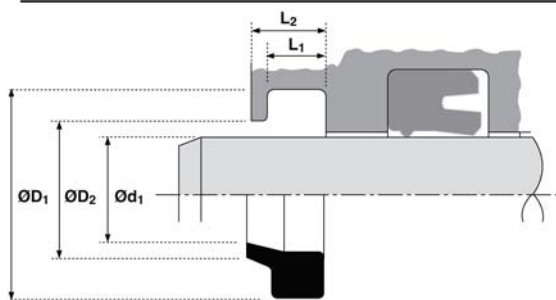
Hallite 33

The metric and inch profiles differ as illustrated above.

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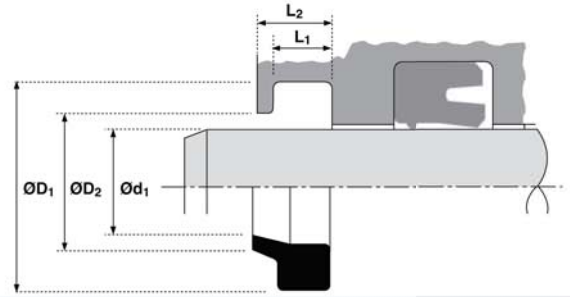


Ød_1	TOL f9	ØD_1	TOL H11	ØD_2	TOL H11	L_1 +0.2 - 0	L_2	PART No.
12	-0.016 -0.059	20.0	+0.13 +0.00	16.0	+0.11 +0.00	4.0	6.0	2232500
14	-0.016 -0.059	22.0	+0.13 +0.00	18.0	+0.11 +0.00	4.0	6.0	2232600
16	-0.016 -0.059	24.0	+0.13 +0.00	20.0	+0.13 +0.00	4.0	6.0	2232800
18	-0.016 -0.059	26.0	+0.13 +0.00	22.0	+0.13 +0.00	4.0	6.0	2232900
20	-0.020 -0.072	28.0	+0.13 +0.00	24.0	+0.13 +0.00	4.0	6.0	2233000
22	-0.020 -0.072	30.0	+0.13 +0.00	26.0	+0.13 +0.00	4.0	6.0	2233100
25	-0.020 -0.072	33.0	+0.16 +0.00	29.0	+0.13 +0.00	4.0	6.0	2233200
25	-0.020 -0.072	33.0	+0.16 +0.00	30.5	+0.16 +0.00	5.0	6.4	6586200‡
28	-0.020 -0.072	36.0	+0.16 +0.00	32.0	+0.16 +0.00	4.0	6.0	2233300
28	-0.020 -0.072	36.0	+0.16 +0.00	33.5	+0.16 +0.00	5.0	6.4	6586300‡
30	-0.020 -0.072	42.0	+0.16 +0.00	36.0	+0.16 +0.00	6.0	9.0	2233400
32	-0.025 -0.087	40.0	+0.16 +0.00	37.5	+0.16 +0.00	5.0	6.4	6586400‡
32	-0.025 -0.087	44.0	+0.16 +0.00	38.0	+0.16 +0.00	6.0	9.0	2233500
35	-0.025 -0.087	47.0	+0.16 +0.00	41.0	+0.16 +0.00	6.0	9.0	2233600
36	-0.025 -0.087	44.0	+0.16 +0.00	41.5	+0.16 +0.00	5.0	6.4	6586500‡
36	-0.025 -0.087	48.0	+0.16 +0.00	42.0	+0.16 +0.00	6.0	9.0	2233700
40	-0.025 -0.087	48.0	+0.16 +0.00	45.5	+0.16 +0.00	5.0	6.4	6586600‡
40	-0.025 -0.087	52.0	+0.19 +0.00	46.0	+0.16 +0.00	6.0	9.0	2233800
42	-0.025 -0.087	54.0	+0.19 +0.00	48.0	+0.16 +0.00	6.0	9.0	2233900
45	-0.025 -0.087	53.0	+0.19 +0.00	50.5	+0.19 +0.00	5.0	6.4	6586700‡
45	-0.025 -0.087	57.0	+0.19 +0.00	51.0	+0.19 +0.00	6.0	9.0	2234000
50	-0.025 -0.087	58.0	+0.19 +0.00	55.5	+0.19 +0.00	5.0	6.4	6586800‡
50	-0.025 -0.087	62.0	+0.19 +0.00	55.0	+0.19 +0.00	6.0	9.0	2234200

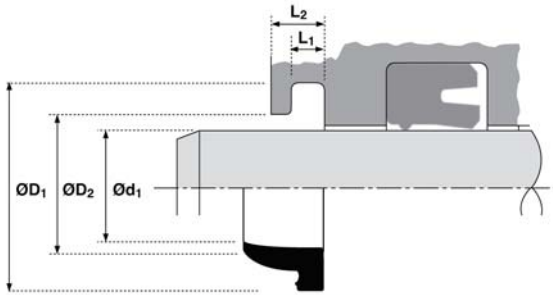


Ød1	TOL f9	ØD1	TOL H11	ØD2	TOL H11	L1 +0.2 - 0	L2	PART No.
55	-0.030 -0.104	67.0	+0.19 +0.00	61.0	+0.19 +0.00	6.0	9.0	2234300
56	-0.030 -0.104	66.0	+0.19 +0.00	63.0	+0.19 +0.00	6.3	8.1	6586900‡
56	-0.030 -0.104	68.0	+0.19 +0.00	62.0	+0.19 +0.00	6.0	9.0	2234400
60	-0.030 -0.104	72.0	+0.19 +0.00	66.0	+0.19 +0.00	6.0	9.0	2234500
63	-0.030 -0.104	73.0	+0.19 +0.00	70.0	+0.19 +0.00	6.3	8.1	6587000‡
63	-0.030 -0.104	75.0	+0.19 +0.00	69.0	+0.19 +0.00	6.0	9.0	2234600
65	-0.030 -0.104	77.0	+0.19 +0.00	71.0	+0.19 +0.00	6.0	9.0	2234700
70	-0.030 -0.104	80.0	+0.19 +0.00	77.0	+0.19 +0.00	6.3	8.1	6587100‡
70	-0.030 -0.104	82.0	+0.22 +0.00	76.0	+0.19 +0.00	6.0	9.0	2234800
80	-0.030 -0.104	90.0	+0.22 +0.00	87.0	+0.22 +0.00	6.3	8.1	6587200‡
90	-0.036 -0.123	100.0	+0.22 +0.00	97.0	+0.22 +0.00	6.3	8.1	6587300‡
90	-0.036 -0.123	106.0	+0.22 +0.00	98.0	+0.22 +0.00	8.0	12.0	2235200
100	-0.036 -0.123	115.0	+0.22 +0.00	110.0	+0.22 +0.00	9.5	12.5	6587400‡
100	-0.036 -0.123	116.0	+0.22 +0.00	108.0	+0.22 +0.00	8.0	12.0	2235300
105	-0.036 -0.123	121.0	+0.25 +0.00	113.0	+0.22 +0.00	8.0	12.0	2235400
110	-0.036 -0.123	125.0	+0.25 +0.00	120.0	+0.22 +0.00	9.5	12.5	6587500‡
125	-0.043 -0.143	140.0	+0.25 +0.00	135.0	+0.25 +0.00	9.5	12.5	6587600‡
140	-0.043 -0.143	155.0	+0.25 +0.00	150.0	+0.25 +0.00	9.5	12.5	6587700‡
140	-0.043 -0.143	156.0	+0.25 +0.00	148.0	+0.25 +0.00	8.0	12.0	1222800
150	-0.043 -0.143	166.0	+0.25 +0.00	158.0	+0.25 +0.00	8.0	12.0	1222900
160	-0.043 -0.143	175.0	+0.25 +0.00	170.0	+0.25 +0.00	9.5	12.5	6587800‡
160	-0.043 -0.143	176.0	+0.25 +0.00	168.0	+0.25 +0.00	8.0	12.0	1223000
180	-0.043 -0.143	200.0	+0.29 +0.00	190.0	+0.29 +0.00	10.0	15.0	1226300

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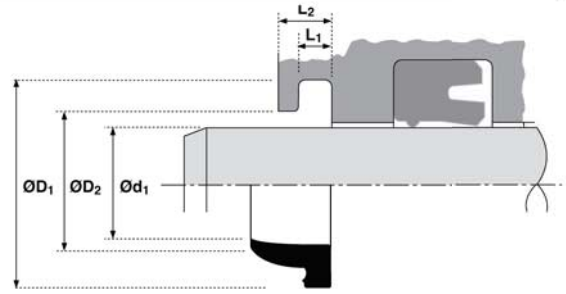


Ød ₁	TOL f9	ØD ₁	TOL H11	ØD ₂	TOL H11	L ₁ +0.2 - 0	L ₂	PART No.
190	-0.050 -0.165	210.0	+0.29 +0.00	200.0	+0.29 +0.00	10.0	15.0	1226400
200	-0.050 -0.165	220.0	+0.29 +0.00	210.0	+0.29 +0.00	10.0	15.0	1226500
220	-0.050 -0.165	240.0	+0.29 +0.00	233.5	+0.29 +0.00	12.5	16.6	6588100‡



Ød_1	TOL f9	ØD_1 +0.020 +0.010	ØD_2 ±0.005	L1	L2	PART No.
0.500	-0.0006 -0.0023	0.900	0.700	0.125	0.250	1464100
0.625	-0.0006 -0.0023	1.025	0.825	0.125	0.250	1470700
0.750	-0.0008 -0.0028	1.150	0.950	0.125	0.250	1347700
0.875	-0.0008 -0.0028	1.275	1.075	0.125	0.250	1056700
1.000	-0.0008 -0.0028	1.400	1.200	0.125	0.250	1456300
1.125	-0.0008 -0.0028	1.625	1.425	0.125	0.375	1476700
1.250	-0.0010 -0.0034	1.750	1.550	0.125	0.375	1453100
1.375	-0.0010 -0.0034	1.875	1.675	0.125	0.375	1471800
1.500	-0.0010 -0.0034	2.000	1.800	0.125	0.375	0696900
1.625	-0.0010 -0.0034	2.125	1.925	0.125	0.375	0269600
1.750	-0.0010 -0.0034	2.250	2.050	0.125	0.375	0266400
2.000	-0.0012 -0.0041	2.500	2.300	0.125	0.375	0228100
2.250	-0.0012 -0.0041	2.750	2.550	0.125	0.375	0851100
2.500	-0.0012 -0.0041	3.000	2.800	0.125	0.375	1450000
2.750	-0.0012 -0.0041	3.250	3.050	0.125	0.375	2222400
3.000	-0.0012 -0.0041	3.500	3.300	0.125	0.375	0951300
3.250	-0.0014 -0.0048	4.000	3.650	0.187	0.500	1472500
3.500	-0.0014 -0.0048	4.250	3.900	0.187	0.500	1445000
4.000	-0.0014 -0.0048	4.750	4.400	0.187	0.500	1453300
4.500	-0.0014 -0.0048	5.250	4.900	0.187	0.500	1613600
5.000	-0.0017 -0.0056	5.750	5.400	0.187	0.500	0258600
5.500	-0.0017 -0.0056	6.250	5.900	0.187	0.500	0223500
6.000	-0.0017 -0.0056	6.750	6.400	0.187	0.500	0222500

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Ød1	TOL f9	ØD1 +0.020 +0.010	ØD2 ±0.005	L1 +0.020 +0.010	L2	PART No.
6.500	-0.0017 -0.0056	7.500	7.000	0.250	0.625	1613100
7.000	-0.0017 -0.0056	8.000	7.500	0.250	0.625	1614600
8.000	-0.0020 -0.0065	9.000	8.500	0.250	0.625	0786500