

Wipers

Technical details

Metric

Inch

Operating conditions

Maximum Speed	4.0 m/sec
Temperature Range	-45°C +110°C

12.0 ft/sec
-50°F +230°F

Surface roughness

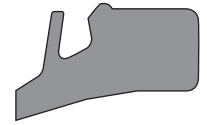
	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face $\varnothing d_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face $\varnothing D_1$ $\varnothing D_2$	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max

Radii

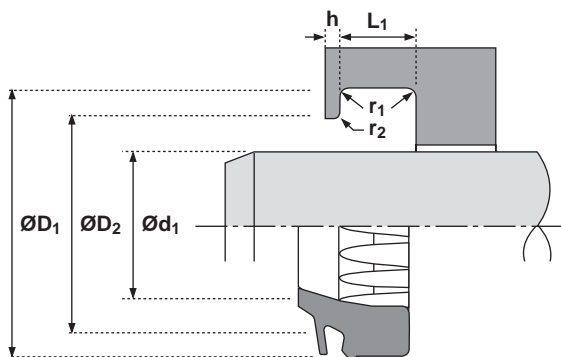
Rod Diameter $\varnothing d_1$	≤ 50	≤ 90	≤ 200	> 200
Max Fillet Rad r_1 mm	0.4	0.4	0.4	0.8
Max Fillet Rad r_2 mm	0.2	0.4	0.6	0.8
Rod Diameter $\varnothing d_1$	≤ 2.000	≤ 3.500	≤ 7.875	> 7.875
Max Fillet Rad r_1 in	0.016	0.016	0.016	0.032
Max Fillet Rad r_2 in	0.008	0.016	0.024	0.032

Tolerances

	$\varnothing d_1$	$\varnothing D_1$	$\varnothing D_2$	L_1	h
mm	f9	H11	H11	+0.2 -0	+0.10 +0
in	f9	H11	H11	+0.008 -0	+0.004 +0



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Design

The Hallite 842 rod wiper is designed to prevent the ingress of foreign particles and moisture into the cylinder. The profile has been specially developed for harsh environments, in particular the longwall mining industry.

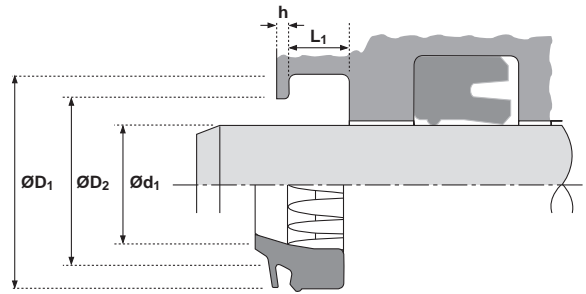
The special feature is the flap on the wiping lip which covers the gland housing, preventing the water/slurry trap so common with conventional wipers and thus ingress of contamination around the outside of the wiper. The internal ribs on the inside diameter prevent the possibility of pressure trapping between the gland seal and the wiper and ensure correct support and guidance of the wiping lip, even in cases of high eccentricity as can occur between the outer stage gland and the inner cylinder of a roof support leg.

The Hallite 842 is manufactured in Hallite's high performance polyurethane, Hythane® 181. The material has excellent compression set characteristics, excellent wear and abrasive resistance, proven compatibility with HFA (95/5) fluids, as used in longwall mining equipment, and with mineral oil.

A number of sizes, indicated by *, do not have an interference fit between the outside diameter of the wiper and the wiper housing bore $\varnothing D_1$. They float on the retaining lip.

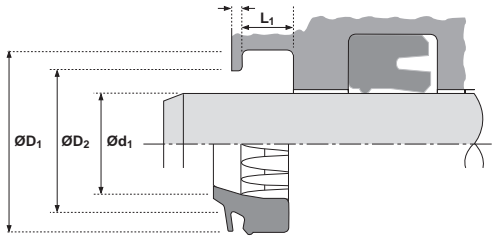
NB: Part numbers suffixed by " ± " indicate housing sizes to meet ISO6195A

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Ød ₁	TOL f9	ØD ₁	TOL H11	ØD ₂	TOL H11	L ₁ +0.008 - 0	L ₂	h +0.004 - 0	PART No.
1.750	-0.0010 -0.0034	2.125	+0.007 +0.000	1.995	+0.007 +0.000	0.220	0.362	0.079	4543300
2.000	-0.0012 -0.0041	2.375	+0.007 +0.000	2.245	+0.007 +0.000	0.220	0.362	0.079	4543200
2.500	-0.0012 -0.0041	2.875	+0.007 +0.000	2.745	+0.007 +0.000	0.220	0.362	0.079	4708200
2.750	-0.0012 -0.0041	3.125	+0.007 +0.000	2.995	+0.007 +0.000	0.220	0.362	0.079	4554600
3.000	-0.0012 -0.0041	3.375	+0.009 +0.000	3.245	+0.009 +0.000	0.220	0.362	0.079	4543400
3.125	-0.0012 -0.0041	3.500	+0.009 +0.000	3.370	+0.009 +0.000	0.220	0.362	0.079	4543100
3.250	-0.0014 -0.0048	3.625	+0.009 +0.000	3.495	+0.009 +0.000	0.220	0.362	0.079	4721400
3.375	-0.0014 -0.0048	3.750	+0.009 +0.000	3.620	+0.009 +0.000	0.220	0.362	0.079	4554700
3.625	-0.0014 -0.0048	4.000	+0.009 +0.000	3.870	+0.009 +0.000	0.220	0.362	0.079	4543000
3.750	-0.0014 -0.0048	4.125	+0.009 +0.000	3.995	+0.009 +0.000	0.220	0.362	0.079	4708300
3.875	-0.0014 -0.0048	4.250	+0.009 +0.000	4.120	+0.009 +0.000	0.220	0.362	0.079	4523600
4.000	-0.0014 -0.0048	4.375	+0.009 +0.000	4.245	+0.009 +0.000	0.220	0.362	0.079	4708400
4.375	-0.0014 -0.0048	4.875	+0.010 +0.000	4.715	+0.010 +0.000	0.312	0.472	0.080	4707800
4.750	-0.0014 -0.0048	5.250	+0.010 +0.000	5.090	+0.010 +0.000	0.312	0.472	0.080	4547300
5.000	-0.0016 -0.0056	5.500	+0.010 +0.000	5.340	+0.010 +0.000	0.312	0.472	0.080	4708500
5.250	-0.0016 -0.0056	5.750	+0.010 +0.000	5.590	+0.010 +0.000	0.312	0.472	0.080	4707900
5.750	-0.0016 -0.0056	6.250	+0.010 +0.000	6.090	+0.010 +0.000	0.312	0.472	0.080	4547400
6.000	-0.0016 -0.0056	6.500	+0.010 +0.000	6.340	+0.010 +0.000	0.312	0.472	0.080	4708600
6.250	-0.0016 -0.0056	7.000	+0.010 +0.000	6.745	+0.010 +0.000	0.500	0.740	0.100	4708000
6.750	-0.0016 -0.0056	7.250	+0.012 +0.000	7.090	+0.010 +0.000	0.312	0.472	0.080	4547500
7.000	-0.0020 -0.0065	7.500	+0.012 +0.000	7.340	+0.012 +0.000	0.312	0.472	0.080	4708700

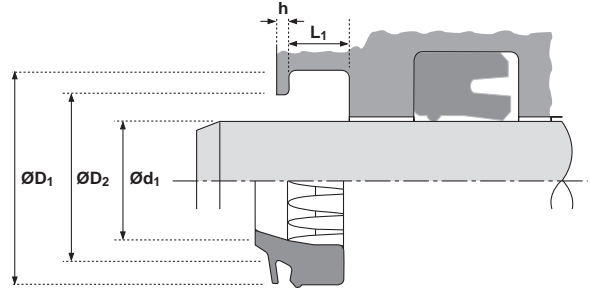
Wipers inch



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$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL H11	$\varnothing D_2$	TOL H11	L_1 +0.008 - 0	L_2	h +0.004 - 0	PART No.
7.000	-0.0020 -0.0065	7.750	+0.012 +0.000	7.495	+0.012 +0.000	0.500	0.740	0.100	4588400
7.000	-0.0020 -0.0065	8.000	+0.012 +0.000	7.625	+0.012 +0.000	0.500	0.740	0.125	4774100
7.750	-0.0020 -0.0065	8.250	+0.012 +0.000	8.090	+0.012 +0.000	0.312	0.472	0.080	4547600
8.000	-0.0020 -0.0065	8.500	+0.012 +0.000	8.340	+0.012 +0.000	0.312	0.472	0.080	4708800
8.750	-0.0020 -0.0065	9.250	+0.012 +0.000	9.090	+0.012 +0.000	0.312	0.472	0.080	4536700

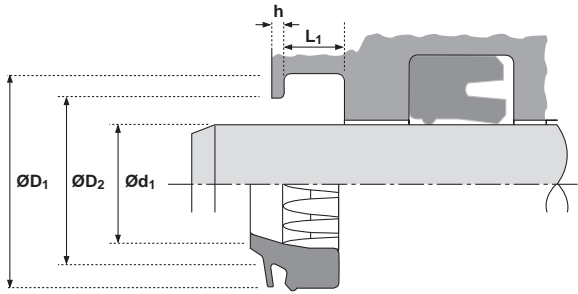
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$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL H11	$\varnothing D_2$	TOL H11	L_1 +0.2 - 0	L_2	h +0.1 - 0	PART No.
32	-0.025 -0.087	40.0	+0.16 +0.00	37.5	+0.16 +0.00	5.0	8.0	1.50	4714900‡
35	-0.025 -0.087	45.0	+0.16 +0.00	42.0	+0.16 +0.00	6.3	10.0	1.50	4515300
36	-0.025 -0.087	44.0	+0.16 +0.00	41.5	+0.16 +0.00	5.0	8.0	1.50	4715000‡
38	-0.025 -0.087	46.0	+0.16 +0.00	43.0	+0.16 +0.00	5.3	8.0	1.50	4568700
40	-0.025 -0.087	48.0	+0.16 +0.00	45.5	+0.16 +0.00	5.0	8.0	1.50	4536500‡
45	-0.025 -0.087	53.0	+0.19 +0.00	50.5	+0.19 +0.00	5.0	8.0	1.50	4715100‡
50	-0.025 -0.087	58.0	+0.19 +0.00	55.5	+0.19 +0.00	5.0	8.0	1.50	4533600‡
55	-0.030 -0.104	65.0	+0.19 +0.00	62.0	+0.19 +0.00	6.3	10.0	1.50	4764600
56	-0.030 -0.104	66.0	+0.19 +0.00	63.0	+0.19 +0.00	6.3	10.0	1.50	4715200‡
60	-0.030 -0.104	70.0	+0.19 +0.00	67.0	+0.19 +0.00	6.3	10.0	1.50	4557800
60	-0.030 -0.104	72.0	+0.19 +0.00	67.0	+0.19 +0.00	4.1	10.0	2.50	4739300*
63	-0.030 -0.104	73.0	+0.19 +0.00	70.0	+0.19 +0.00	6.3	10.0	1.50	4536600‡
70	-0.030 -0.104	82.6	+0.22 +0.00	78.4	+0.19 +0.00	8.0	12.0	2.00	4480800
70	-0.030 -0.104	85.0	+0.22 +0.00	78.0	+0.19 +0.00	5.1	12.0	3.00	4739400*
75	-0.030 -0.104	90.0	+0.22 +0.00	83.0	+0.22 +0.00	5.1	12.0	3.00	4744000*
80	-0.030 -0.104	90.0	+0.22 +0.00	87.0	+0.22 +0.00	6.3	10.0	1.50	4715300‡
80	-0.030 -0.104	95.0	+0.22 +0.00	88.0	+0.22 +0.00	5.1	12.0	3.00	4739500*
85	-0.036 -0.123	97.6	+0.22 +0.00	93.4	+0.22 +0.00	8.0	12.0	2.00	4521800
85	-0.036 -0.123	100.0	+0.22 +0.00	93.0	+0.22 +0.00	5.1	10.0	3.00	4744100*
90	-0.036 -0.123	102.2	+0.22 +0.00	96.0	+0.22 +0.00	7.1	12.4	2.80	4727300

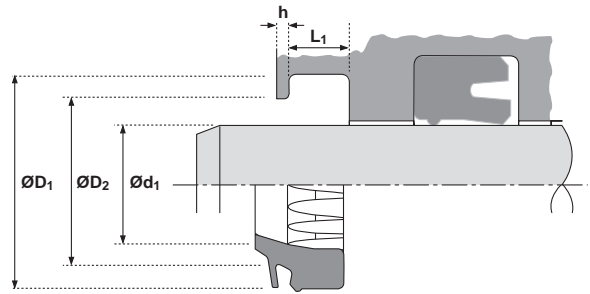
Wipers metric

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Ød ₁	TOL f9	ØD ₁	TOL H11	ØD ₂	TOL H11	L ₁ +0.2 - 0	L ₂	h +0.1 - 0	PART No.
90	-0.036 -0.123	102.6	+0.22 +0.00	98.4	+0.22 +0.00	8.0	12.0	2.00	4512500
90	-0.036 -0.123	105.0	+0.22 +0.00	98.0	+0.22 +0.00	5.1	10.0	3.00	4744600*
95	-0.036 -0.123	110.0	+0.22 +0.00	105.0	+0.22 +0.00	9.5	14.0	2.80	4536900
100	-0.036 -0.123	112.2	+0.22 +0.00	106.0	+0.22 +0.00	7.1	12.4	2.80	4727400
100	-0.036 -0.123	114.0	+0.22 +0.00	109.9	+0.22 +0.00	8.0	12.0	1.50	4536000
100	-0.036 -0.123	115.0	+0.22 +0.00	108.0	+0.22 +0.00	5.1	12.0	3.00	4584800*
100	-0.036 -0.123	115.0	+0.22 +0.00	110.0	+0.22 +0.00	9.5	14.0	2.00	4589500‡
105	-0.036 -0.123	120.0	+0.22 +0.00	115.0	+0.22 +0.00	9.5	14.0	2.50	4532100
110	-0.036 -0.123	125.0	+0.25 +0.00	118.0	+0.22 +0.00	5.1	12.0	3.00	4739600*
110	-0.036 -0.123	125.0	+0.25 +0.00	120.0	+0.22 +0.00	9.5	14.0	2.00	4715400‡
120	-0.036 -0.123	135.0	+0.25 +0.00	130.0	+0.25 +0.00	9.5	14.0	2.00	4580800
125	-0.043 -0.123	137.2	+0.25 +0.00	131.0	+0.25 +0.00	7.6	10.6	2.80	4727500
125	-0.043 -0.143	140.0	+0.25 +0.00	133.0	+0.25 +0.00	5.1	12.0	3.00	4748300*
125	-0.043 -0.143	140.0	+0.25 +0.00	135.0	+0.25 +0.00	9.5	14.0	2.00	4715500‡
130	-0.043 -0.143	145.0	+0.25 +0.00	140.0	+0.25 +0.00	9.5	14.0	2.25	4491700
140	-0.043 -0.143	152.2	+0.25 +0.00	146.0	+0.25 +0.00	7.6	12.9	2.80	4727600
140	-0.043 -0.143	155.0	+0.25 +0.00	150.0	+0.25 +0.00	9.5	14.0	2.00	4555900‡
145	-0.043 -0.143	160.0	+0.25 +0.00	155.0	+0.25 +0.00	9.5	14.0	2.25	4570200
150	-0.043 -0.143	169.0	+0.25 +0.00	159.0	+0.25 +0.00	6.1	14.0	4.00	4748400*
155	-0.043 -0.143	170.0	+0.25 +0.00	165.0	+0.25 +0.00	9.5	12.0	2.25	4535200

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$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL H11	$\varnothing D_2$	TOL H11	L_1 +0.2 - 0	L_2	h +0.1 - 0	PART No.
170	-0.043 -0.143	189.0	+0.29 +0.00	179.0	+0.25 +0.00	6.1	14.0	4.00	4749200*
175	-0.043 -0.143	190.0	+0.29 +0.00	185.0	+0.29 +0.00	9.5	14.0	2.25	4552100
180	-0.043 -0.143	195.0	+0.29 +0.00	190.0	+0.29 +0.00	9.5	14.0	2.25	4491300‡
190	-0.050 -0.165	209.0	+0.29 +0.00	199.0	+0.29 +0.00	6.1	14.0	4.00	4749300*
200	-0.050 -0.165	223.0	+0.29 +0.00	211.0	+0.29 +0.00	8.3	20.0	4.80	4748700*
215	-0.050 -0.165	230.0	+0.29 +0.00	225.0	+0.29 +0.00	9.5	14.0	2.00	4705500
230	-0.050 -0.165	250.0	+0.29 +0.00	240.0	+0.29 +0.00	10.2	18.0	3.80	4750500
250	-0.050 -0.165	270.0	+0.32 +0.00	260.0	+0.32 +0.00	10.2	19.0	3.80	4725100
320	-0.062 -0.202	340.0	+0.36 +0.00	330.0	+0.36 +0.00	10.2	18.0	3.80	4750400
350	-0.062 -0.202	370.0	+0.36 +0.00	360.0	+0.36 +0.00	10.2	18.0	3.80	4725200

*These wipers do not have an interference fit between the outside diameter of the wiper and the wiper housing bore $\varnothing D_1$. They float on the retaining lip.