

Design

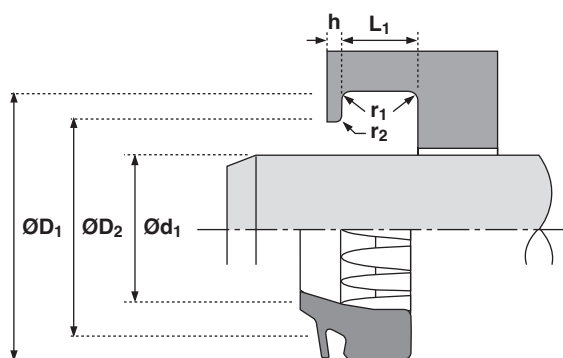
The Hallite 842 rod wiper is designed to prevent the ingress of foreign particles and moisture into the cylinder. The profile has been specially developed for harsh environments, in particular the longwall mining industry.

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 ØD1 . They float on the retaining lip.

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



Technical details

Operating conditions

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

Inch

12.0 ft/sec
-50°F +230°F

Surface roughness

	µmRa	µmRt
Dynamic Sealing Face Ød ₁	0.1 < > 0.4	4 max
Static Sealing Face ØD ₁ ØD ₂ h	1.6 max	10 max
Static Housing Faces L ₁	3.2 max	16 max

µinCLA	µinRMS
4 < > 16	5 < > 18
63 max	70 max
125 max	140 max

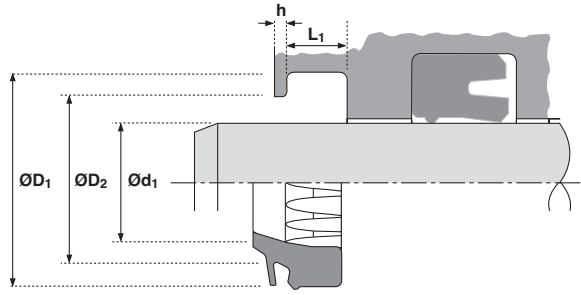
Radii

Rod Diameter Ød 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 Ød 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

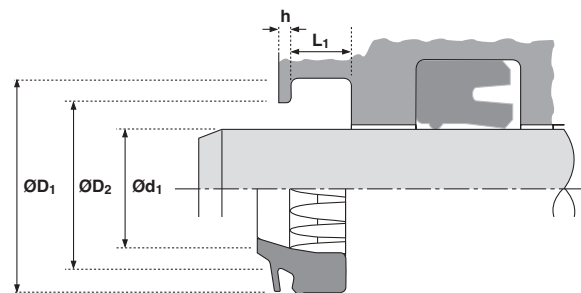
Tolerances

	Ød ₁	ØD ₁	ØD ₂	L ₁	h
mm	f9	H11	H11	+0.2 -0	+0.10 +0
in	f9	H11	H11	+0.008 -0	+0.004 +0

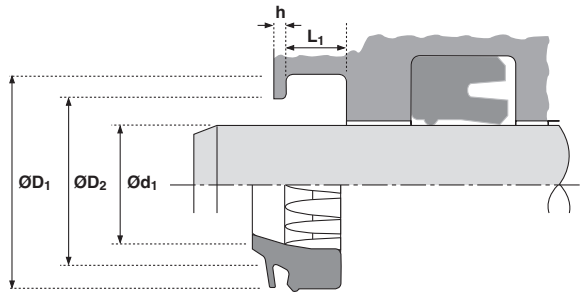




Ød ₁	TOL f9	ØD ₁	TOL H11	ØD ₂	TOL H11	L ₁ +0.2 -0	L ₂	h +0.1 -0	PART No.
20	-0.025 -0.087	26.0	+0.16 +0.00	24.0	+0.16 +0.00	4.0	6.0	1.00	4787000
32	-0.025 -0.087	40.0	+0.16 +0.00	37.5	+0.16 +0.00	5.0	8.0	1.50	4714900‡
35	-0.025 -0.087	45.0	+0.16 +0.00	42.0	+0.16 +0.00	6.3	10.0	1.50	4515300
36	-0.025 -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
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*

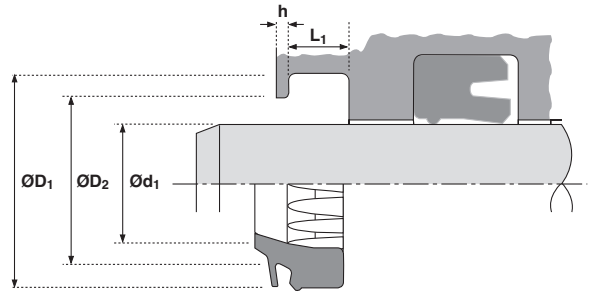


Ød ₁	TOL f9	ØD ₁	TOL H11	ØD ₂	TOL H11	L ₁ +0.2 -0	L ₂	h +0.1 -0	PART No.
95	-0.036 -0.123	110.0	+0.22 +0.00	105.0	+0.22 +0.00	9.5	14.0	2.80	4536900
100	-0.036 -0.123	112.2	+0.22 +0.00	106.0	+0.22 +0.00	7.1	12.4	2.80	4727400
100	-0.036 -0.123	114.0	+0.22 +0.00	109.9	+0.22 +0.00	8.0	12.0	1.50	4536000
100	-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	12.9	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
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*

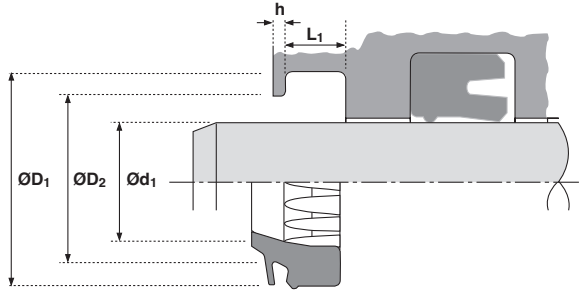


Ød ₁	TOL f9	ØD ₁	TOL H11	ØD ₂	TOL H11	L ₁ +0.2 -0	L ₂	h +0.1 -0	PART No.
215	-0.050 -0.165	230.0	+0.29 +0.00	225.0	+0.29 +0.00	9.5	14.0	2.00	4705500
220	-0.050 -0.165	240.0	+0.29 +0.00	230.0	+0.29 +0.00	10.2	18.0	3.80	4859800
230	-0.050 -0.165	250.0	+0.29 +0.00	240.0	+0.29 +0.00	10.2	18.0	3.80	4750500
235	-0.050 0.165	255.0	+0.32 +0.00	245.0	+0.29 +0.00	10.2	18.0	3.80	4773300
250	-0.050 -0.165	270.0	+0.32 +0.00	260.0	+0.32 +0.00	10.2	18.0	3.80	4725100
295	-0.050 -0.165	315.0	+0.32 +0.00	305.0	+0.32 +0.00	10.2	18.0	3.80	4851900
320	-0.062 -0.202	340.0	+0.36 +0.00	330.0	+0.36 +0.00	10.2	18.0	3.80	4750400
335	-0.062 -0.202	355.0	+0.36 +0.00	345.0	+0.36 +0.00	10.2	18.0	3.80	4773400
350	-0.062 -0.202	370.0	+0.36 +0.00	360.0	+0.36 +0.00	10.2	18.0	3.80	4725200
415	-0.068 -0.223	435.0	+0.40 +0.00	425.0	+0.40 +0.00	10.2	18.0	3.80	4851800

*These wipers do not have an interference fit between the outside diameter of the wiper and the wiper housing bore ØD1, they float on the retaining lip.



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
3.500	-0.0014 -0.0048	3.875	+0.009 +0.000	3.745	+0.009 +0.000	0.220	0.362	0.079	4818700
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	+0.009 +0.000	0.312	0.472	0.080	4707800
4.750	-0.0016 -0.0056	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	-0.0016 -0.0056	7.500	+0.012 +0.000	7.340	+0.012 +0.000	0.312	0.472	0.080	4708700
7.000	-0.0016 -0.0056	7.750	+0.012 +0.000	7.495	+0.012 +0.000	0.500	0.740	0.100	4588400



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.
7.000	-0.0016 -0.0056	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

