ROZBUDOWA ZKŁADU PRZETWÓRSTWA OWOCÓW O HALĘ PRODUKCYJNĄ Z CZĘŚCIĄ SOCJALNĄ, HALĘ PRODUKCJI LIOFILIZATÓW,
ORAZ 3 HALE NAMIOTOWE NA OPAKOWANIA I MAGAZYN OWOCÓW MROŻONYCH

ISTNIEJĄCY ZAKŁAD Z NOWĄ INSTALACJĄ

PORA DNIA
Z UWZGLĘDNIENIEM TŁA AKUSTYCZNEGO

HAŁAS PRZEMYSŁOWY i DROGOWY
PROGRAM SON2 WERSJA 3.2

DANE WEJSCIOWE

Rodzaj obliczeń: Poziom hałasu równownoważnego

1. Nazwa projektu:
   Rozbudowy zakładu przetwórstwa owoców o halę produkcyjną z częścią socjalną, halę produkcji liofilizatów, oraz 3 hale namiotowe na opakowania i magazyn owoców mrożonych
2. Temperatura powietrza [st C.]= 10
3. Wilgotność względna powietrza [%]= 70
4. Tło akustyczne dB(A):
   Pora dnia : 38
   Pora nocy : 0
5. Rodzaj gruntu : grunt twardy. wskaźnik gruntu G = 0
6. Punktowe źródła hałasu

Lp	Symbol	Współrzędne źródła x [m]	y [m]	z [m]	Rodzaj źródła	LAW [dB(A)]	tD [h]
1	1	113.9	281.4	1.0	wszechkier.	76.2	8.0
2	2	106.9	284.7	1.0	wszechkier.	76.2	8.0
3	3	106.2	294.7	1.0	wszechkier.	76.2	8.0
4	4	105.5	304.6	1.0	wszechkier.	76.2	8.0
5	5	96.2	314.6	1.0	wszechkier.	76.2	8.0
6	6	86.2	314.6	1.0	wszechkier.	76.2	8.0
7	7	104.7	316.0	1.0	wszechkier.	76.2	8.0
8	8	104.0	326.0	1.0	wszechkier.	76.2	8.0
9	9	103.3	336.0	1.0	wszechkier.	76.2	8.0
10	10	102.6	345.9	1.0	wszechkier.	76.2	8.0
11	11	101.9	355.9	1.0	wszechkier.	76.2	8.0
12	12	101.2	365.9	1.0	wszechkier.	76.2	8.0
13	13	100.5	375.9	1.0	wszechkier.	76.2	8.0
14	14	99.9	385.8	1.0	wszechkier.	76.2	8.0
15	15	99.2	395.8	1.0	wszechkier.	76.2	8.0
16	16	98.6	405.8	1.0	wszechkier.	76.2	8.0
17	17	98.0	415.8	1.0	wszechkier.	76.2	8.0
18	18	97.3	425.8	1.0	wszechkier.	76.2	8.0
19	19	270.6	388.4	1.0	wszechkier.	65.0	8.0
20	20	261.3	386.4	1.0	wszechkier.	65.0	8.0
21	21	254.4	392.3	1.0	wszechkier.	65.0	8.0
22	22	252.4	402.1	1.0	wszechkier.	65.0	8.0
23	23	249.1	409.9	1.0	wszechkier.	65.0	8.0
24	24	239.3	407.9	1.0	wszechkier.	65.0	8.0
25	25	287.0	170.2	1.0	wszechkier.	65.0	8.0
26	26	277.7	169.9	1.0	wszechkier.	65.0	8.0
27	27	267.7	169.6	1.0	wszechkier.	65.0	8.0
28	28	264.4	177.1	1.0	wszechkier.	65.0	8.0
29	29	260.2	183.1	1.0	wszechkier.	65.0	8.0
30	30	250.5	182.1	1.0	wszechkier.	65.0	8.0
31	31	240.4	180.9	1.0	wszechkier.	65.0	8.0
32	32	290.0	111.4	1.0	wszechkier.	63.7	8.0
33	33	280.3	108.6	1.0	wszechkier.	63.7	8.0
34	34	270.7	105.9	1.0	wszechkier.	63.7	8.0
35	35	261.3	103.2	1.0	wszechkier.	63.7	8.0
36	36	251.5	100.3	1.0	wszechkier.	63.7	8.0
37	37	241.9	97.6	1.0	wszechkier.	63.7	8.0
38	38	232.3	94.8	1.0	wszechkier.	63.7	8.0
39	39	222.7	92.0	1.0	wszechkier.	63.7	8.0
40	40	219.8	85.4	1.0	wszechkier.	63.7	8.0
41	41	264.0	93.5	1.0	wszechkier.	63.7	8.0
42	42	266.8	83.9	1.0	wszechkier.	63.7	8.0
43	43	269.5	74.3	1.0	wszechkier.	63.7	8.0
44	44	55.6	313.9	7.0	wszechkier.	70.0	8.0
45	45	56.3	308.4	8.0	wszechkier.	70.0	8.0
46	46	64.9	313.5	1.0	wszechkier.	70.0	8.0
47	47	69.4	313.7	1.0	wszechkier.	70.0	8.0
48	48	71.2	307.3	1.0	wszechkier.	70.0	8.0
49	49	115.6	344.8	18.0	wszechkier.	60.0	8.0
50	50	114.7	350.6	18.0	wszechkier.	60.0	8.0
51	51	117.3	352.4	18.0	wszechkier.	60.0	8.0
52	52	119.2	343.2	18.0	wszechkier.	60.0	8.0
53	53	198.8	400.4	18.1	wszechkier.	60.0	8.0
54	54	205.0	401.6	18.1	wszechkier.	60.0	8.0
55	55	197.4	397.3	18.1	wszechkier.	60.0	8.0
56	56	200.4	397.9	18.1	wszechkier.	60.0	8.0
57	57	203.7	398.5	18.1	wszechkier.	60.0	8.0
58	58	206.6	399.1	18.1	wszechkier.	60.0	8.0
59	59	200.7	177.1	18.1	wszechkier.	60.0	8.0
60	60	206.6	178.3	18.1	wszechkier.	60.0	8.0
61	61	199.1	173.9	18.1	wszechkier.	60.0	8.0
62	62	202.1	174.5	18.1	wszechkier.	60.0	8.0
63	63	205.4	175.1	18.1	wszechkier.	60.0	8.0
64	64	208.3	175.7	18.1	wszechkier.	60.0	8.0

LAW - poziom mocy akustycznej źródła nominalny
tD - czas pracy źródła w przedziale 8 kolejnych najmniej korzystnych godzin dnia

7.Ekrany - budynki

Lp	Symbol	Współrzędne x.y wierzchołków ekranu[m]								ho	h1	Współczynniki odbicia scian nr 1 - 4
		x1	y1	x2	y2	x3	y3	x4	y4	m	m	
1	1	106.5	112.1	113.7	108.1	433.3	434.5	426.6	425.7	4.5	0.0	1.0
2	2	108.1	122.6	129.8	114.0	425.7	428.1	392.0	392.0	4.5	0.0	1.0
3	3	50.6	68.5	70.9	52.8	306.0	306.8	267.3	266.0	6.8	0.0	1.0
4	4	68.6	76.5	78.0	70.2	305.3	305.7	278.3	278.0	6.8	0.0	1.0
5	5	76.2	94.0	96.0	78.0	312.0	313.1	279.3	278.0	8.1	0.0	1.0
6	6	70.2	106.1	108.2	72.4	278.0	279.8	243.5	241.4	10.8	0.0	1.0
7	7	52.2	70.9	72.0	53.2	266.2	267.3	249.3	248.0	10.8	0.0	1.0
8	8	63.9	72.0	72.5	64.4	248.8	249.3	238.8	238.4	10.8	0.0	1.0
9	9	140.5	169.4	170.2	141.3	258.8	263.8	259.0	254.0	7.7	0.0	1.0

8. Źródła hałasu typu budynek

Lp	Symbol	Współrzędne wierzchołków budynku [m]								ho	h1
		A(x1.	y1)	B(x2.	y2)	C(x3.	y3)	D(x4.	y4)	m	m
1	1	109.7	388.5	153.1	396.0	161.7	348.6	112.7	339.2	0.0	17.52
2	2	164.3	398.9	236.0	412.0	245.4	360.7	173.7	347.6	0.0	17.62
3	3	119.6	273.3	166.4	281.3	169.4	263.8	122.6	255.8	0.0	7.70
4	4	166.0	176.6	237.1	189.5	246.2	139.0	175.0	126.2	0.0	17.62
5	5	50.1	315.4	60.3	316.0	61.0	306.5	50.6	306.0	0.0	5.00

8.1 Opis ścian budynków

Lp	Budynek	Wielkość	Jedn.	Ściana AB	Ściana BC	Ściana CD	Ściana DA	dach
1	1	Wsp. odbicia	-	1.0	1.0	1.0	1.0	1.0
		LAwew dzień		77.70	77.70	77.70	77.70	77.30
		Izolacyjność	dB(A)	31.00	31.00	31.00	31.00	31.00
2	2	Wsp. odbicia	-	1.0	1.0	1.0	1.0	1.0
		LAwew dzień		77.50	77.70	77.50	77.50	77.20
		Izolacyjność	dB(A)	31.00	31.00	31.00	31.00	31.00
3	3	Wsp. odbicia	-	1.0	1.0	1.0	1.0	1.0
		LAwew dzień		78.40	80.10	78.40	80.10	77.70
		Izolacyjność	dB(A)	31.00	31.00	31.00	31.00	31.00
4	4	Wsp. odbicia	-	1.0	1.0	1.0	1.0	1.0
		LAwew dzień		77.50	77.60	77.50	77.60	77.20
		Izolacyjność	dB(A)	31.00	31.00	31.00	31.00	31.00
5	5	Wsp. odbicia	-	1.0	1.0	1.0	1.0	1.0
		LAwew dzień		81.60	81.70	81.60	81.70	81.00
		Izolacyjność	dB(A)	31.00	31.00	31.00	31.00	31.00

LAwew dzień - poziom dźwięku A wewnątrz budynku w przedziale 8 kolejnych najmniej korzystnych godzin dnia

9. Punkty obserwacji

Lp	Symbol	Współrzędne punktu			Poziom dźwięku w porze dnia
		x	y	z	
		m	m	m	dB(A)
1	1.0	24.9	683.3	4.0	38.4
2	2.0	49.3	690.2	4.0	38.4
3	3.0	56.4	663.2	4.0	38.5
4	4.0	121.1	682.7	4.0	38.4
5	5.0	132.6	639.0	4.0	38.4
6	6.0	67.5	617.7	4.0	38.6
7	7.0	76.6	581.4	4.0	38.8
8	8.0	81.6	560.8	4.0	39.0
9	9.0	89.2	556.8	4.0	39.1
10	10.0	93.7	537.7	4.0	39.3
11	11.0	108.6	480.1	4.0	40.7
12	12.0	116.7	432.6	4.0	40.6
13	13.0	125.8	433.8	4.0	40.1
14	14.0	132.2	397.9	4.0	41.5
15	15.0	155.4	400.2	4.0	40.3
16	16.0	155.1	403.6	4.0	40.1
17	17.0	224.2	417.4	4.0	40.2
18	18.0	266.4	425.8	4.0	39.5
19	19.0	279.4	357.4	4.0	39.6
20	20.0	242.6	350.7	4.0	40.6
21	21.0	193.4	341.9	4.0	41.4
22	22.0	144.2	333.0	4.0	43.8
23	23.0	112.5	327.3	4.0	51.0
24	24.0	114.3	302.7	4.0	50.7
25	25.0	156.6	310.8	4.0	42.9
26	26.0	205.8	320.1	4.0	40.7
27	27.0	236.4	325.9	4.0	40.1
28	28.0	241.8	323.3	4.0	40.0
29	29.0	245.7	307.6	4.0	39.8
30	30.0	199.9	299.0	4.0	40.7
31	31.0	184.3	299.4	4.0	41.2
32	32.0	181.0	310.3	4.0	41.4
33	33.0	174.4	309.8	4.0	41.6
34	34.0	177.2	295.1	4.0	41.5
35	35.0	115.6	284.3	4.0	53.8
36	36.0	116.1	276.2	4.0	51.1
37	37.0	145.5	281.2	4.0	44.9
38	38.0	169.3	285.3	4.0	42.0
39	39.0	176.1	250.6	4.0	39.0
40	40.0	144.3	244.4	4.0	39.0
41	41.0	136.0	249.2	4.0	40.1
42	42.0	117.4	248.1	4.0	42.9
43	43.0	117.7	237.1	4.0	41.7

44	44.0	49.4	233.8	4.0	38.3
45	45.0	47.7	259.5	4.0	38.4
46	46.0	43.7	320.5	4.0	44.3
47	47.0	82.7	324.3	4.0	49.6
48	48.0	79.5	373.9	4.0	47.0
49	49.0	76.2	423.8	4.0	45.3
50	50.0	64.5	487.8	4.0	40.2
51	51.0	96.1	492.8	4.0	40.3
52	52.0	95.5	496.7	4.0	40.2
53	53.0	64.6	492.0	4.0	40.1
54	54.0	50.8	557.7	4.0	39.0
55	55.0	40.6	606.7	4.0	38.6
56	56.0	30.5	655.7	4.0	38.5
57	57.0	122.3	176.3	4.0	39.7
58	58.0	200.2	189.9	4.0	41.3
59	59.0	249.4	199.0	4.0	40.5
60	60.0	293.0	206.7	4.0	39.3
61	61.0	295.4	151.0	4.0	39.8
62	62.0	297.3	101.1	4.0	39.9
63	63.0	298.5	68.0	4.0	38.9
64	64.0	233.4	52.8	4.0	39.0
65	65.0	184.6	41.6	4.0	38.7
66	66.0	133.0	29.7	4.0	38.6
67	67.0	129.0	76.6	4.0	38.8
68	68.0	124.8	126.4	4.0	39.4
69	69.0	122.4	154.4	4.0	39.6
70	70.0	137.2	427.5	4.0	40.0
71	71.0	157.8	409.5	4.0	39.9
72	72.0	205.7	419.1	4.0	40.2
73	73.0	186.1	611.8	4.0	38.3
74	74.0	296.0	480.0	4.0	38.4
75	75.0	240.1	453.5	4.0	38.9

Koniec danych

Poziom hałasu w sieci
LAeq . pory dnia

Nr punktu	Współrzędne punktów x	y	z	Poziom dźwięku w porze dnia
	m	m	m	dB(A)
1	0.00	0.00	4.0	38.14
2	0.00	20.00	4.0	38.15
3	0.00	40.00	4.0	38.16
4	0.00	60.00	4.0	38.18
5	0.00	80.00	4.0	38.19
6	0.00	100.00	4.0	38.24
7	0.00	120.00	4.0	38.25
8	0.00	140.00	4.0	38.26
9	0.00	160.00	4.0	38.25
10	0.00	180.00	4.0	38.28
11	0.00	200.00	4.0	38.35
12	0.00	220.00	4.0	38.46
13	0.00	240.00	4.0	38.66
14	0.00	260.00	4.0	38.96
15	0.00	280.00	4.0	39.35
16	0.00	300.00	4.0	39.84
17	0.00	320.00	4.0	40.44
18	0.00	340.00	4.0	40.53
19	0.00	360.00	4.0	40.54
20	0.00	380.00	4.0	40.44
21	0.00	400.00	4.0	40.33
22	0.00	420.00	4.0	40.15
23	0.00	440.00	4.0	39.92
24	0.00	460.00	4.0	39.71
25	0.00	480.00	4.0	39.49
26	0.00	500.00	4.0	39.27
27	0.00	520.00	4.0	39.09
28	0.00	540.00	4.0	38.95
29	0.00	560.00	4.0	38.81
30	0.00	580.00	4.0	38.70
31	0.00	600.00	4.0	38.61
32	0.00	620.00	4.0	38.53
33	0.00	640.00	4.0	38.47
34	0.00	660.00	4.0	38.41
35	0.00	680.00	4.0	38.37
36	0.00	700.00	4.0	38.33
37	0.00	720.00	4.0	38.30
38	0.00	740.00	4.0	38.27
39	20.00	0.00	4.0	38.15
40	20.00	20.00	4.0	38.17
41	20.00	40.00	4.0	38.18
42	20.00	60.00	4.0	38.20
43	20.00	80.00	4.0	38.22
44	20.00	100.00	4.0	38.27
45	20.00	120.00	4.0	38.28
46	20.00	140.00	4.0	38.30
47	20.00	160.00	4.0	38.27
48	20.00	180.00	4.0	38.29
49	20.00	200.00	4.0	38.32
50	20.00	220.00	4.0	38.37
51	20.00	240.00	4.0	38.53
52	20.00	260.00	4.0	38.91
53	20.00	280.00	4.0	39.47
54	20.00	300.00	4.0	40.47
55	20.00	320.00	4.0	41.39
56	20.00	340.00	4.0	41.51
57	20.00	360.00	4.0	41.42
58	20.00	380.00	4.0	41.27
59	20.00	400.00	4.0	41.05
60	20.00	420.00	4.0	40.78
61	20.00	440.00	4.0	40.48
62	20.00	460.00	4.0	40.10
63	20.00	480.00	4.0	39.77

64	20.00	500.00	4.0	39.49
65	20.00	520.00	4.0	39.24
66	20.00	540.00	4.0	39.04
67	20.00	560.00	4.0	38.88
68	20.00	580.00	4.0	38.75
69	20.00	600.00	4.0	38.64
70	20.00	620.00	4.0	38.56
71	20.00	640.00	4.0	38.49
72	20.00	660.00	4.0	38.43
73	20.00	680.00	4.0	38.38
74	20.00	700.00	4.0	38.34
75	20.00	720.00	4.0	38.31
76	20.00	740.00	4.0	38.28
77	40.00	0.00	4.0	38.16
78	40.00	20.00	4.0	38.18
79	40.00	40.00	4.0	38.20
80	40.00	60.00	4.0	38.22
81	40.00	80.00	4.0	38.24
82	40.00	100.00	4.0	38.27
83	40.00	120.00	4.0	38.33
84	40.00	140.00	4.0	38.35
85	40.00	160.00	4.0	38.32
86	40.00	180.00	4.0	38.32
87	40.00	200.00	4.0	38.33
88	40.00	220.00	4.0	38.37
89	40.00	240.00	4.0	38.45
90	40.00	260.00	4.0	38.53
91	40.00	280.00	4.0	38.99
92	40.00	300.00	4.0	41.24
93	40.00	320.00	4.0	43.48
94	40.00	340.00	4.0	42.98
95	40.00	360.00	4.0	42.67
96	40.00	380.00	4.0	42.39
97	40.00	400.00	4.0	42.17
98	40.00	420.00	4.0	41.74
99	40.00	440.00	4.0	41.20
100	40.00	460.00	4.0	40.60
101	40.00	480.00	4.0	40.10
102	40.00	500.00	4.0	39.68
103	40.00	520.00	4.0	39.36
104	40.00	540.00	4.0	39.12
105	40.00	560.00	4.0	38.94
106	40.00	580.00	4.0	38.79
107	40.00	600.00	4.0	38.68
108	40.00	620.00	4.0	38.59
109	40.00	640.00	4.0	38.51
110	40.00	660.00	4.0	38.45
111	40.00	680.00	4.0	38.40
112	40.00	700.00	4.0	38.35
113	40.00	720.00	4.0	38.31
114	40.00	740.00	4.0	38.28
115	60.00	0.00	4.0	38.18
116	60.00	20.00	4.0	38.20
117	60.00	40.00	4.0	38.22
118	60.00	60.00	4.0	38.24
119	60.00	80.00	4.0	38.27
120	60.00	100.00	4.0	38.30
121	60.00	120.00	4.0	38.37
122	60.00	140.00	4.0	38.40
123	60.00	160.00	4.0	38.36
124	60.00	180.00	4.0	38.36
125	60.00	200.00	4.0	38.36
126	60.00	220.00	4.0	38.35
127	60.00	240.00	4.0	38.29
128	60.00	260.00	4.0	-0.07
129	60.00	280.00	4.0	-0.03
130	60.00	300.00	4.0	-0.03
131	60.00	320.00	4.0	48.28
132	60.00	340.00	4.0	44.90
133	60.00	360.00	4.0	44.36
134	60.00	380.00	4.0	44.15
135	60.00	400.00	4.0	43.84
136	60.00	420.00	4.0	43.24
137	60.00	440.00	4.0	42.25
138	60.00	460.00	4.0	41.20
139	60.00	480.00	4.0	40.42
140	60.00	500.00	4.0	39.87
141	60.00	520.00	4.0	39.48
142	60.00	540.00	4.0	39.20
143	60.00	560.00	4.0	38.99
144	60.00	580.00	4.0	38.83
145	60.00	600.00	4.0	38.71
146	60.00	620.00	4.0	38.61
147	60.00	640.00	4.0	38.53
148	60.00	660.00	4.0	38.46
149	60.00	680.00	4.0	38.41
150	60.00	700.00	4.0	38.36
151	60.00	720.00	4.0	38.32
152	60.00	740.00	4.0	38.29
153	80.00	0.00	4.0	38.22
154	80.00	20.00	4.0	38.25
155	80.00	40.00	4.0	38.28
156	80.00	60.00	4.0	38.30
157	80.00	80.00	4.0	38.33
158	80.00	100.00	4.0	38.36
159	80.00	120.00	4.0	38.47
160	80.00	140.00	4.0	38.50
161	80.00	160.00	4.0	38.52
162	80.00	180.00	4.0	38.44
163	80.00	200.00	4.0	38.45
164	80.00	220.00	4.0	38.40
165	80.00	240.00	4.0	38.25
166	80.00	260.00	4.0	-0.06
167	80.00	280.00	4.0	-0.05
168	80.00	300.00	4.0	-0.05
169	80.00	320.00	4.0	50.00
170	80.00	340.00	4.0	47.47

171	80.00	360.00	4.0	47.14
172	80.00	380.00	4.0	47.12
173	80.00	400.00	4.0	47.00
174	80.00	420.00	4.0	46.42
175	80.00	440.00	4.0	44.04
176	80.00	460.00	4.0	41.89
177	80.00	480.00	4.0	40.71
178	80.00	500.00	4.0	40.02
179	80.00	520.00	4.0	39.57
180	80.00	540.00	4.0	39.26
181	80.00	560.00	4.0	39.03
182	80.00	580.00	4.0	38.86
183	80.00	600.00	4.0	38.73
184	80.00	620.00	4.0	38.63
185	80.00	640.00	4.0	38.54
186	80.00	660.00	4.0	38.47
187	80.00	680.00	4.0	38.41
188	80.00	700.00	4.0	38.37
189	80.00	720.00	4.0	38.33
190	80.00	740.00	4.0	38.30
191	100.00	0.00	4.0	38.26
192	100.00	20.00	4.0	38.30
193	100.00	40.00	4.0	38.34
194	100.00	60.00	4.0	38.39
195	100.00	80.00	4.0	38.45
196	100.00	100.00	4.0	38.52
197	100.00	120.00	4.0	38.69
198	100.00	140.00	4.0	38.76
199	100.00	160.00	4.0	38.83
200	100.00	180.00	4.0	38.79
201	100.00	200.00	4.0	38.73
202	100.00	220.00	4.0	38.72
203	100.00	240.00	4.0	38.41
204	100.00	260.00	4.0	-0.06
205	100.00	280.00	4.0	49.73
206	100.00	300.00	4.0	52.08
207	100.00	320.00	4.0	54.12
208	100.00	340.00	4.0	53.56
209	100.00	360.00	4.0	54.03
210	100.00	380.00	4.0	54.23
211	100.00	400.00	4.0	54.03
212	100.00	420.00	4.0	53.26
213	100.00	440.00	4.0	45.72
214	100.00	460.00	4.0	42.22
215	100.00	480.00	4.0	40.84
216	100.00	500.00	4.0	40.09
217	100.00	520.00	4.0	39.62
218	100.00	540.00	4.0	39.29
219	100.00	560.00	4.0	39.07
220	100.00	580.00	4.0	38.89
221	100.00	600.00	4.0	38.75
222	100.00	620.00	4.0	38.64
223	100.00	640.00	4.0	38.55
224	100.00	660.00	4.0	38.48
225	100.00	680.00	4.0	38.42
226	100.00	700.00	4.0	38.37
227	100.00	720.00	4.0	38.33
228	100.00	740.00	4.0	38.29
229	120.00	0.00	4.0	38.37
230	120.00	20.00	4.0	38.44
231	120.00	40.00	4.0	38.55
232	120.00	60.00	4.0	38.70
233	120.00	80.00	4.0	38.82
234	120.00	100.00	4.0	38.96
235	120.00	120.00	4.0	39.25
236	120.00	140.00	4.0	39.44
237	120.00	160.00	4.0	39.62
238	120.00	180.00	4.0	39.72
239	120.00	200.00	4.0	40.10
240	120.00	220.00	4.0	40.75
241	120.00	240.00	4.0	42.06
242	120.00	260.00	4.0	44.95
243	120.00	280.00	4.0	50.66
244	120.00	300.00	4.0	48.74
245	120.00	320.00	4.0	48.51
246	120.00	340.00	4.0	46.62
247	120.00	360.00	4.0	-1.00
248	120.00	380.00	4.0	-1.00
249	120.00	400.00	4.0	-0.02
250	120.00	420.00	4.0	-0.02
251	120.00	440.00	4.0	40.49
252	120.00	460.00	4.0	40.54
253	120.00	480.00	4.0	40.02
254	120.00	500.00	4.0	39.60
255	120.00	520.00	4.0	39.30
256	120.00	540.00	4.0	39.08
257	120.00	560.00	4.0	38.89
258	120.00	580.00	4.0	38.74
259	120.00	600.00	4.0	38.64
260	120.00	620.00	4.0	38.55
261	120.00	640.00	4.0	38.48
262	120.00	660.00	4.0	38.43
263	120.00	680.00	4.0	38.38
264	120.00	700.00	4.0	38.33
265	120.00	720.00	4.0	38.30
266	120.00	740.00	4.0	38.27
267	140.00	0.00	4.0	38.47
268	140.00	20.00	4.0	38.55
269	140.00	40.00	4.0	38.64
270	140.00	60.00	4.0	38.76
271	140.00	80.00	4.0	38.90
272	140.00	100.00	4.0	39.07
273	140.00	120.00	4.0	39.48
274	140.00	140.00	4.0	39.69
275	140.00	160.00	4.0	39.84
276	140.00	180.00	4.0	39.71
277	140.00	200.00	4.0	39.76

278	140.00	220.00	4.0	39.44
279	140.00	240.00	4.0	39.12
280	140.00	260.00	4.0	-3.00
281	140.00	280.00	4.0	45.50
282	140.00	300.00	4.0	44.60
283	140.00	320.00	4.0	44.57
284	140.00	340.00	4.0	44.41
285	140.00	360.00	4.0	-1.00
286	140.00	380.00	4.0	-1.00
287	140.00	400.00	4.0	40.88
288	140.00	420.00	4.0	39.97
289	140.00	440.00	4.0	39.58
290	140.00	460.00	4.0	39.38
291	140.00	480.00	4.0	39.27
292	140.00	500.00	4.0	39.02
293	140.00	520.00	4.0	38.92
294	140.00	540.00	4.0	38.78
295	140.00	560.00	4.0	38.69
296	140.00	580.00	4.0	38.59
297	140.00	600.00	4.0	38.50
298	140.00	620.00	4.0	38.45
299	140.00	640.00	4.0	38.40
300	140.00	660.00	4.0	38.35
301	140.00	680.00	4.0	38.32
302	140.00	700.00	4.0	38.28
303	140.00	720.00	4.0	38.25
304	140.00	740.00	4.0	38.23
305	160.00	0.00	4.0	38.48
306	160.00	20.00	4.0	38.56
307	160.00	40.00	4.0	38.66
308	160.00	60.00	4.0	38.78
309	160.00	80.00	4.0	38.91
310	160.00	100.00	4.0	39.12
311	160.00	120.00	4.0	39.37
312	160.00	140.00	4.0	40.12
313	160.00	160.00	4.0	40.32
314	160.00	180.00	4.0	39.47
315	160.00	200.00	4.0	39.14
316	160.00	220.00	4.0	39.13
317	160.00	240.00	4.0	38.98
318	160.00	260.00	4.0	-0.09
319	160.00	280.00	4.0	-3.00
320	160.00	300.00	4.0	42.67
321	160.00	320.00	4.0	42.58
322	160.00	340.00	4.0	42.67
323	160.00	360.00	4.0	41.82
324	160.00	380.00	4.0	42.12
325	160.00	400.00	4.0	40.28
326	160.00	420.00	4.0	39.60
327	160.00	440.00	4.0	39.39
328	160.00	460.00	4.0	39.11
329	160.00	480.00	4.0	39.07
330	160.00	500.00	4.0	38.86
331	160.00	520.00	4.0	38.72
332	160.00	540.00	4.0	38.60
333	160.00	560.00	4.0	38.55
334	160.00	580.00	4.0	38.47
335	160.00	600.00	4.0	38.41
336	160.00	620.00	4.0	38.38
337	160.00	640.00	4.0	38.33
338	160.00	660.00	4.0	38.29
339	160.00	680.00	4.0	38.26
340	160.00	700.00	4.0	38.23
341	160.00	720.00	4.0	38.22
342	160.00	740.00	4.0	38.20
343	180.00	0.00	4.0	38.45
344	180.00	20.00	4.0	38.54
345	180.00	40.00	4.0	38.65
346	180.00	60.00	4.0	38.81
347	180.00	80.00	4.0	39.01
348	180.00	100.00	4.0	39.48
349	180.00	120.00	4.0	40.07
350	180.00	140.00	4.0	-4.00
351	180.00	160.00	4.0	-4.00
352	180.00	180.00	4.0	40.64
353	180.00	200.00	4.0	39.70
354	180.00	220.00	4.0	39.28
355	180.00	240.00	4.0	39.11
356	180.00	260.00	4.0	39.38
357	180.00	280.00	4.0	41.16
358	180.00	300.00	4.0	41.32
359	180.00	320.00	4.0	41.54
360	180.00	340.00	4.0	41.84
361	180.00	360.00	4.0	-2.00
362	180.00	380.00	4.0	-2.00
363	180.00	400.00	4.0	-2.00
364	180.00	420.00	4.0	39.91
365	180.00	440.00	4.0	39.37
366	180.00	460.00	4.0	39.02
367	180.00	480.00	4.0	38.84
368	180.00	500.00	4.0	38.77
369	180.00	520.00	4.0	38.62
370	180.00	540.00	4.0	38.52
371	180.00	560.00	4.0	38.44
372	180.00	580.00	4.0	38.38
373	180.00	600.00	4.0	38.36
374	180.00	620.00	4.0	38.32
375	180.00	640.00	4.0	38.28
376	180.00	660.00	4.0	38.25
377	180.00	680.00	4.0	38.22
378	180.00	700.00	4.0	38.21
379	180.00	720.00	4.0	38.18
380	180.00	740.00	4.0	38.17
381	200.00	0.00	4.0	38.47
382	200.00	20.00	4.0	38.58
383	200.00	40.00	4.0	38.72
384	200.00	60.00	4.0	39.00

385	200.00	80.00	4.0	39.40
386	200.00	100.00	4.0	39.71
387	200.00	120.00	4.0	40.36
388	200.00	140.00	4.0	-4.00
389	200.00	160.00	4.0	-4.00
390	200.00	180.00	4.0	-4.00
391	200.00	200.00	4.0	40.05
392	200.00	220.00	4.0	39.44
393	200.00	240.00	4.0	39.21
394	200.00	260.00	4.0	39.65
395	200.00	280.00	4.0	40.52
396	200.00	300.00	4.0	40.67
397	200.00	320.00	4.0	40.85
398	200.00	340.00	4.0	41.30
399	200.00	360.00	4.0	-2.00
400	200.00	380.00	4.0	-2.00
401	200.00	400.00	4.0	-2.00
402	200.00	420.00	4.0	40.18
403	200.00	440.00	4.0	39.38
404	200.00	460.00	4.0	39.00
405	200.00	480.00	4.0	38.78
406	200.00	500.00	4.0	38.63
407	200.00	520.00	4.0	38.56
408	200.00	540.00	4.0	38.47
409	200.00	560.00	4.0	38.40
410	200.00	580.00	4.0	38.35
411	200.00	600.00	4.0	38.30
412	200.00	620.00	4.0	38.25
413	200.00	640.00	4.0	38.24
414	200.00	660.00	4.0	38.21
415	200.00	680.00	4.0	38.19
416	200.00	700.00	4.0	38.17
417	200.00	720.00	4.0	38.16
418	200.00	740.00	4.0	38.14
419	220.00	0.00	4.0	38.44
420	220.00	20.00	4.0	38.54
421	220.00	40.00	4.0	38.71
422	220.00	60.00	4.0	39.12
423	220.00	80.00	4.0	41.67
424	220.00	100.00	4.0	41.24
425	220.00	120.00	4.0	40.51
426	220.00	140.00	4.0	-4.00
427	220.00	160.00	4.0	-4.00
428	220.00	180.00	4.0	-4.00
429	220.00	200.00	4.0	40.17
430	220.00	220.00	4.0	39.52
431	220.00	240.00	4.0	39.42
432	220.00	260.00	4.0	39.63
433	220.00	280.00	4.0	40.01
434	220.00	300.00	4.0	40.14
435	220.00	320.00	4.0	40.36
436	220.00	340.00	4.0	40.81
437	220.00	360.00	4.0	-2.00
438	220.00	380.00	4.0	-2.00
439	220.00	400.00	4.0	-2.00
440	220.00	420.00	4.0	40.07
441	220.00	440.00	4.0	39.47
442	220.00	460.00	4.0	38.99
443	220.00	480.00	4.0	38.71
444	220.00	500.00	4.0	38.49
445	220.00	520.00	4.0	38.43
446	220.00	540.00	4.0	38.39
447	220.00	560.00	4.0	38.34
448	220.00	580.00	4.0	38.29
449	220.00	600.00	4.0	38.25
450	220.00	620.00	4.0	38.23
451	220.00	640.00	4.0	38.20
452	220.00	660.00	4.0	38.18
453	220.00	680.00	4.0	38.18
454	220.00	700.00	4.0	38.16
455	220.00	720.00	4.0	38.15
456	220.00	740.00	4.0	38.13
457	240.00	0.00	4.0	38.38
458	240.00	20.00	4.0	38.51
459	240.00	40.00	4.0	38.74
460	240.00	60.00	4.0	39.23
461	240.00	80.00	4.0	40.35
462	240.00	100.00	4.0	43.68
463	240.00	120.00	4.0	40.48
464	240.00	140.00	4.0	-4.00
465	240.00	160.00	4.0	-4.00
466	240.00	180.00	4.0	45.99
467	240.00	200.00	4.0	40.25
468	240.00	220.00	4.0	39.47
469	240.00	240.00	4.0	39.34
470	240.00	260.00	4.0	39.40
471	240.00	280.00	4.0	39.64
472	240.00	300.00	4.0	39.79
473	240.00	320.00	4.0	39.98
474	240.00	340.00	4.0	40.31
475	240.00	360.00	4.0	-2.00
476	240.00	380.00	4.0	-2.00
477	240.00	400.00	4.0	42.66
478	240.00	420.00	4.0	40.80
479	240.00	440.00	4.0	39.23
480	240.00	460.00	4.0	38.79
481	240.00	480.00	4.0	38.58
482	240.00	500.00	4.0	38.45
483	240.00	520.00	4.0	38.37
484	240.00	540.00	4.0	38.32
485	240.00	560.00	4.0	38.31
486	240.00	580.00	4.0	38.27
487	240.00	600.00	4.0	38.23
488	240.00	620.00	4.0	38.21
489	240.00	640.00	4.0	38.19
490	240.00	660.00	4.0	38.17
491	240.00	680.00	4.0	38.15

492	240.00	700.00	4.0	38.14
493	240.00	720.00	4.0	38.13
494	240.00	740.00	4.0	38.12
495	260.00	0.00	4.0	38.37
496	260.00	20.00	4.0	38.51
497	260.00	40.00	4.0	38.77
498	260.00	60.00	4.0	39.48
499	260.00	80.00	4.0	41.45
500	260.00	100.00	4.0	43.99
501	260.00	120.00	4.0	40.45
502	260.00	140.00	4.0	40.06
503	260.00	160.00	4.0	41.47
504	260.00	180.00	4.0	45.38
505	260.00	200.00	4.0	40.35
506	260.00	220.00	4.0	39.43
507	260.00	240.00	4.0	39.26
508	260.00	260.00	4.0	39.23
509	260.00	280.00	4.0	39.39
510	260.00	300.00	4.0	39.43
511	260.00	320.00	4.0	39.53
512	260.00	340.00	4.0	39.68
513	260.00	360.00	4.0	40.09
514	260.00	380.00	4.0	42.37
515	260.00	400.00	4.0	42.68
516	260.00	420.00	4.0	40.20
517	260.00	440.00	4.0	39.08
518	260.00	460.00	4.0	38.69
519	260.00	480.00	4.0	38.51
520	260.00	500.00	4.0	38.41
521	260.00	520.00	4.0	38.34
522	260.00	540.00	4.0	38.29
523	260.00	560.00	4.0	38.27
524	260.00	580.00	4.0	38.24
525	260.00	600.00	4.0	38.21
526	260.00	620.00	4.0	38.19
527	260.00	640.00	4.0	38.17
528	260.00	660.00	4.0	38.16
529	260.00	680.00	4.0	38.14
530	260.00	700.00	4.0	38.13
531	260.00	720.00	4.0	38.12
532	260.00	740.00	4.0	38.11
533	280.00	0.00	4.0	38.33
534	280.00	20.00	4.0	38.45
535	280.00	40.00	4.0	38.66
536	280.00	60.00	4.0	39.23
537	280.00	80.00	4.0	40.35
538	280.00	100.00	4.0	41.46
539	280.00	120.00	4.0	40.70
540	280.00	140.00	4.0	39.84
541	280.00	160.00	4.0	41.52
542	280.00	180.00	4.0	41.73
543	280.00	200.00	4.0	39.76
544	280.00	220.00	4.0	39.25
545	280.00	240.00	4.0	39.08
546	280.00	260.00	4.0	39.05
547	280.00	280.00	4.0	39.14
548	280.00	300.00	4.0	39.21
549	280.00	320.00	4.0	39.25
550	280.00	340.00	4.0	39.36
551	280.00	360.00	4.0	39.61
552	280.00	380.00	4.0	40.35
553	280.00	400.00	4.0	40.12
554	280.00	420.00	4.0	39.39
555	280.00	440.00	4.0	38.84
556	280.00	460.00	4.0	38.59
557	280.00	480.00	4.0	38.46
558	280.00	500.00	4.0	38.37
559	280.00	520.00	4.0	38.32
560	280.00	540.00	4.0	38.27
561	280.00	560.00	4.0	38.23
562	280.00	580.00	4.0	38.22
563	280.00	600.00	4.0	38.19
564	280.00	620.00	4.0	38.17
565	280.00	640.00	4.0	38.16
566	280.00	660.00	4.0	38.14
567	280.00	680.00	4.0	38.13
568	280.00	700.00	4.0	38.12
569	280.00	720.00	4.0	38.11
570	280.00	740.00	4.0	38.10
571	300.00	0.00	4.0	38.30
572	300.00	20.00	4.0	38.40
573	300.00	40.00	4.0	38.54
574	300.00	60.00	4.0	38.78
575	300.00	80.00	4.0	39.10
576	300.00	100.00	4.0	39.64
577	300.00	120.00	4.0	39.75
578	300.00	140.00	4.0	39.37
579	300.00	160.00	4.0	39.89
580	300.00	180.00	4.0	39.89
581	300.00	200.00	4.0	39.35
582	300.00	220.00	4.0	39.01
583	300.00	240.00	4.0	38.92
584	300.00	260.00	4.0	38.91
585	300.00	280.00	4.0	38.97
586	300.00	300.00	4.0	39.02
587	300.00	320.00	4.0	39.03
588	300.00	340.00	4.0	39.09
589	300.00	360.00	4.0	39.19
590	300.00	380.00	4.0	39.26
591	300.00	400.00	4.0	39.08
592	300.00	420.00	4.0	38.90
593	300.00	440.00	4.0	38.62
594	300.00	460.00	4.0	38.48
595	300.00	480.00	4.0	38.39
596	300.00	500.00	4.0	38.33
597	300.00	520.00	4.0	38.28
598	300.00	540.00	4.0	38.24

599	300.00	560.00	4.0	38.22
600	300.00	580.00	4.0	38.19
601	300.00	600.00	4.0	38.18
602	300.00	620.00	4.0	38.16
603	300.00	640.00	4.0	38.15
604	300.00	660.00	4.0	38.13
605	300.00	680.00	4.0	38.13
606	300.00	700.00	4.0	38.11
607	300.00	720.00	4.0	38.10
608	300.00	740.00	4.0	38.10
609	320.00	0.00	4.0	38.27
610	320.00	20.00	4.0	38.34
611	320.00	40.00	4.0	38.43
612	320.00	60.00	4.0	38.56
613	320.00	80.00	4.0	38.71
614	320.00	100.00	4.0	38.85
615	320.00	120.00	4.0	38.92
616	320.00	140.00	4.0	38.94
617	320.00	160.00	4.0	39.09
618	320.00	180.00	4.0	39.08
619	320.00	200.00	4.0	38.98
620	320.00	220.00	4.0	38.81
621	320.00	240.00	4.0	38.78
622	320.00	260.00	4.0	38.78
623	320.00	280.00	4.0	38.82
624	320.00	300.00	4.0	38.86
625	320.00	320.00	4.0	38.86
626	320.00	340.00	4.0	38.88
627	320.00	360.00	4.0	38.91
628	320.00	380.00	4.0	38.96
629	320.00	400.00	4.0	38.77
630	320.00	420.00	4.0	38.64
631	320.00	440.00	4.0	38.48
632	320.00	460.00	4.0	38.39
633	320.00	480.00	4.0	38.33
634	320.00	500.00	4.0	38.28
635	320.00	520.00	4.0	38.25
636	320.00	540.00	4.0	38.22
637	320.00	560.00	4.0	38.20
638	320.00	580.00	4.0	38.18
639	320.00	600.00	4.0	38.16
640	320.00	620.00	4.0	38.15
641	320.00	640.00	4.0	38.14
642	320.00	660.00	4.0	38.12
643	320.00	680.00	4.0	38.11
644	320.00	700.00	4.0	38.10
645	320.00	720.00	4.0	38.10
646	320.00	740.00	4.0	38.09
647	340.00	0.00	4.0	38.24
648	340.00	20.00	4.0	38.29
649	340.00	40.00	4.0	38.36
650	340.00	60.00	4.0	38.43
651	340.00	80.00	4.0	38.51
652	340.00	100.00	4.0	38.58
653	340.00	120.00	4.0	38.64
654	340.00	140.00	4.0	38.68
655	340.00	160.00	4.0	38.77
656	340.00	180.00	4.0	38.77
657	340.00	200.00	4.0	38.75
658	340.00	220.00	4.0	38.67
659	340.00	240.00	4.0	38.65
660	340.00	260.00	4.0	38.66
661	340.00	280.00	4.0	38.70
662	340.00	300.00	4.0	38.73
663	340.00	320.00	4.0	38.72
664	340.00	340.00	4.0	38.72
665	340.00	360.00	4.0	38.73
666	340.00	380.00	4.0	38.77
667	340.00	400.00	4.0	38.61
668	340.00	420.00	4.0	38.50
669	340.00	440.00	4.0	38.38
670	340.00	460.00	4.0	38.33
671	340.00	480.00	4.0	38.28
672	340.00	500.00	4.0	38.24
673	340.00	520.00	4.0	38.22
674	340.00	540.00	4.0	38.19
675	340.00	560.00	4.0	38.17
676	340.00	580.00	4.0	38.16
677	340.00	600.00	4.0	38.15
678	340.00	620.00	4.0	38.13
679	340.00	640.00	4.0	38.13
680	340.00	660.00	4.0	38.12
681	340.00	680.00	4.0	38.11
682	340.00	700.00	4.0	38.10
683	340.00	720.00	4.0	38.09
684	340.00	740.00	4.0	38.09

Tłumienie przez grunt wg wzoru 9 PN-ISO 9613
Koniec obliczeń