

Fiberglass, Rockwool, Polyester, Cotton, and Sheep Absorption Coefficients

0.00 = no absorbtion.
 0.50 = 50% absorbtion.
 1.00 = 100% absorbtion.

Measurements are done according to a standard test method such as ASTM C423 or ISO. "In some cases, the measured sound absorption coefficient is greater than 1.00. As recommended by the test method, these values are reported as measured and not adjusted."
 "Differences in coefficients of less than 0.15 are not significant."

"The absorption coefficients that are typically published for acoustical materials are found using the reverberation chamber method. This method yields random incidence absorption coefficients, **which are not percentages**. Normal incidence absorption coefficients are percentages. The two are often confused in the literature. A material that has a random incidence absorption coefficient of 1.22 is simply a better absorber relative to a material with a random incidence absorption coefficient of 0.67 for the same frequency band, all other factors being equal. The numbers should not, however, be treated as an indicator of the percentage of sound absorbed by the material." [by Savant aka Jeff D. Szymanski](#)

Owens Corning 700 series Rigid Fiberglass

PRODUCT	THICKNESS	MOUNTING	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
701, plain	1" (25mm)	on wall	1.5 pcf (24 kg/m3)	0.17	0.33	0.64	0.83	0.90	0.92	0.70
703, plain	1" (25mm)	on wall	3.0 pcf (48 kg/m3)	0.11	0.28	0.68	0.90	0.93	0.96	0.70
705, plain	1" (25mm)	on wall	6.0 pcf (96 kg/m3)	0.02	0.27	0.63	0.85	0.93	0.95	0.65
701, plain	2" (51mm)	on wall	1.5 pcf (24 kg/m3)	0.22	0.67	0.98	1.02	0.98	1.00	0.90
703, plain	2" (51mm)	on wall	3.0 pcf (48 kg/m3)	0.17	0.86	1.14	1.07	1.02	0.98	1.00
705, plain	2" (51mm)	on wall	6.0 pcf (96 kg/m3)	0.16	0.71	1.02	1.01	0.99	0.99	0.95
701, plain	3" (76mm)	on wall	1.5 pcf (24 kg/m3)	0.43	1.17	1.26	1.09	1.03	1.04	1.15
703, plain	3" (76mm)	on wall	3.0 pcf (48 kg/m3)	0.53	1.19	1.21	1.08	1.01	1.04	1.10
705, plain	3" (76mm)	on wall	6.0 pcf (96 kg/m3)	0.54	1.12	1.23	1.07	1.01	1.05	1.10
701, plain	4" (102mm)	on wall	1.5 pcf (24 kg/m3)	0.73	1.29	1.22	1.06	1.00	0.97	1.15
703, plain	4" (102mm)	on wall	3.0 pcf (48 kg/m3)	0.84	1.24	1.24	1.08	1.00	0.97	1.15
705, plain	4" (102mm)	on wall	6.0 pcf (96 kg/m3)	0.75	1.19	1.17	1.05	0.97	0.98	1.10
703, plain	6" (152mm)	on wall	3.0 pcf (48 kg/m3)	1.19	1.21	1.13	1.05	1.04	1.04	
703, FRK	1" (25mm)	on wall	3.0 pcf (48 kg/m3)	0.18	0.75	0.58	0.72	0.62	0.35	0.65
705, FRK	1" (25mm)	on wall	6.0 pcf (96 kg/m3)	0.27	0.66	0.33	0.66	0.51	0.41	0.55
703, FRK	2" (51mm)	on wall	3.0 pcf (48 kg/m3)	0.63	0.56	0.95	0.79	0.60	0.35	0.75
705, FRK	2" (51mm)	on wall	6.0 pcf (96 kg/m3)	0.60	0.50	0.63	0.82	0.45	0.34	0.60
703, FRK	3" (76mm)	on wall	3.0 pcf (48 kg/m3)	0.84	0.88	0.86	0.71	0.52	0.26	
705, FRK	3" (76mm)	on wall	6.0 pcf (96 kg/m3)	0.66	0.46	0.47	0.40	0.52	0.31	
703, FRK	4" (102mm)	on wall	3.0 pcf (48 kg/m3)	0.88	0.90	0.84	0.71	0.49	0.23	
705, FRK	4" (102mm)	on wall	6.0 pcf (96 kg/m3)	0.65	0.52	0.42	0.36	0.49	0.31	
703, ASJ	1" (25mm)	on wall	3.0 pcf (48 kg/m3)	0.17	0.71	0.59	0.68	0.54	0.30	0.65
705, ASJ	1" (25mm)	on wall	6.0 pcf (96 kg/m3)	0.20	0.64	0.33	0.56	0.54	0.33	0.50
703, ASJ	2" (51mm)	on wall	3.0 pcf (48 kg/m3)	0.47	0.62	1.01	0.81	0.51	0.32	0.75
705, ASJ	2" (51mm)	on wall	6.0 pcf (96 kg/m3)	0.58	0.49	0.73	0.76	0.55	0.35	0.65
701, plain	1" (25mm)	16" air	1.5 pcf (24 kg/m3)	0.56	0.85	0.70	0.89	0.93	1.06	0.85
703, plain	1" (25mm)	16" air	3.0 pcf (48 kg/m3)	0.65	0.94	0.76	0.98	1.00	1.14	0.90
705, plain	1" (25mm)	16" air	6.0 pcf (96 kg/m3)	0.68	0.91	0.78	0.97	1.05	1.18	0.95
701, plain	2" (51mm)	16" air	1.5 pcf (24 kg/m3)	0.76	1.02	0.98	1.07	1.04	1.20	1.05
703, plain	2" (51mm)	16" air	3.0 pcf (48 kg/m3)	0.66	0.95	1.06	1.11	1.09	1.18	1.05
705, plain	2" (51mm)	16" air	6.0 pcf (96 kg/m3)	0.62	0.95	0.98	1.07	1.09	1.22	1.00
701, plain	3" (76mm)	16" air	1.5 pcf (24 kg/m3)	0.77	1.08	1.16	1.09	1.05	1.18	1.10
703, plain	3" (76mm)	16" air	3.0 pcf (48 kg/m3)	0.66	0.93	1.13	1.10	1.11	1.14	1.05
705, plain	3" (76mm)	16" air	6.0 pcf (96 kg/m3)	0.66	0.92	1.11	1.12	1.10	1.19	1.05
701, plain	4" (102mm)	16" air	1.5 pcf (24 kg/m3)	0.87	1.14	1.24	1.17	1.18	1.28	1.20
703, plain	4" (102mm)	16" air	3.0 pcf (48 kg/m3)	0.65	1.01	1.20	1.14	1.10	1.16	1.10
705, plain	4" (102mm)	16" air	6.0 pcf (96 kg/m3)	0.59	0.91	1.15	1.11	1.11	1.19	1.10
711, plain			1.7 pcf							
1240	1.5" (38mm)	A	4.0 pcf (64 kg/m3)	0.13	0.48	1.02	1.08	1.02	1.01	0.90
1260	1.5" (38mm)	A	6.0 pcf (96 kg/m3)	0.18	0.62	1.08	1.08	1.03	1.07	0.95
1280	1.5" (38mm)	A	8.0 pcf (96 kg/m3)	0.13	0.64	1.08	1.08	1.04	1.07	0.95
1240	2" (51mm)	A	4.0 pcf (64 kg/m3)	0.20	0.61	1.07	1.06	1.04	1.07	0.95
1260	2" (51mm)	A	6.0 pcf (96 kg/m3)	0.25	0.85	1.15	1.10	1.04	1.06	1.05
1280	2" (51mm)	A	8.0 pcf (96 kg/m3)	0.32	0.90	1.11	1.07	1.01	1.05	1.00
1260	3" (76mm)	A	6.0 pcf (96 kg/m3)	0.80	1.07	1.11	0.99	0.98	0.96	1.05
1240	4" (102mm)	A	4.0 pcf (64 kg/m3)	0.88	1.14	1.17	1.08	1.06	1.10	1.10
1260	4" (102mm)	A	6.0 pcf (96 kg/m3)	0.99	1.01	1.10	1.03	1.03	1.05	1.05
1280	4" (102mm)	A	8.0 pcf (96 kg/m3)	1.11	0.91	1.07	1.03	1.06	1.07	1.00
1240	6" (152mm)	A	4.0 pcf (64 kg/m3)	1.31	1.14	1.11	1.09	1.06	1.07	1.10

Owens Corning

I'm unable to find Absorption Coefficient information on [SOFTR Aeroflex Plus Acoustical Duct Liner \(rolls, black on one side\)](#).

PRODUCT	THICKNESS	DENSITY	MOUNTING	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
---------	-----------	---------	----------	-------	-------	-------	--------	--------	--------	-----

SelectSound Black 150B Blanket	1" (25mm)	1.5 pcf (24 kg/m ³)		0.10	0.34	0.64	0.87	0.91	0.91	0.70		
Blanket	2" (51mm)			0.27	0.80	1.12	1.07	1.02	1.01	1.00		
Sound Attenuation Batts	2.5" (63mm)		A on wall	0.21	0.62	0.93	0.92	0.91	1.03	0.85		
Sound Attenuation Batts	3.5" (89mm)		A on wall	0.48	1.00	1.12	1.03	0.97	0.96	1.05		
Sound Attenuation Batts	2.5" (63mm)		E-405 16"	0.59	0.84	0.79	0.94	0.96	1.12	0.90		
Sound Attenuation Batts	3.5" (89mm)		E-405 16"	0.73	0.98	0.98	1.05	1.08	1.15	1.00		
Black Acoustic Board	1" (25mm)		A	0.06	0.25	0.62	0.91	0.99	0.98	0.70		
Black Acoustic Board	2" (51mm)		A	0.18	0.71	1.12	1.12	1.03	1.02	1.00		
Sound Attenuation Fire Batt	1.5" (38mm)			0.23	0.42	0.89	1.00	1.03	1.03	0.85		
Sound Attenuation Fire Batt	2" (51mm)			0.27	0.55	1.07	1.10	1.10	1.10	0.95		
Sound Attenuation Fire Batt	2.5" (63mm)			0.25	0.77	1.10	1.12	1.04	0.98	1.05		
Sound Attenuation Fire Batt	3" (76mm)			0.34	0.92	1.16	1.12	1.04	0.98	1.05		
Sound Attenuation Fire Batt	3.5" (89mm)			0.41	1.01	1.20	1.14	1.06	1.05	1.10		
Sound Attenuation Fire Batt	4" (102mm)			0.97	1.28	1.25	1.10	1.10	1.09	1.20		
Aeroflex Duct 150	150 1" (25mm)	1.5pcf (24kg/m ³)	A	0.15	0.25	0.45	0.68	0.79	0.81	0.55		
Aeroflex Duct 150	1.5" (38mm)	1.5pcf (24kg/m ³)	A	0.16	0.36	0.61	0.83	0.90	0.92	0.70		
Aeroflex Duct 150	2" (51mm)	1.5pcf (24kg/m ³)	A	0.20	0.53	0.79	0.94	0.95	0.97	0.80		
Aeroflex Duct 200	0.5" (13mm)	2pcf (32kg/m ³)	A	0.10	0.15	0.27	0.49	0.66	0.77	0.40		
Aeroflex Duct 200	1" (25mm)	2pcf (32kg/m ³)	A	0.11	0.28	0.49	0.70	0.81	0.86	0.55		
Aeroflex Duct 200	1.5" (38mm)	2pcf (32kg/m ³)	A	0.16	0.41	0.71	0.90	1.01	0.93	0.75		
Aeroflex Duct 200	2" (51mm)	2pcf (32kg/m ³)	A	0.20	0.55	0.87	1.00	0.95	0.95	0.85		
Aeroflex Duct R-6	1.5" (38mm)	2.75pcf (44kg/m ³)	A	0.14	0.41	0.80	0.97	1.01	0.94	0.80		
Aeroflex Duct 300	0.5" (13mm)	3pcf (48kg/m ³)	A	0.08	0.16	0.30	0.51	0.69	0.84	0.40		
Aeroflex Duct 300	1" (25mm)	3pcf (48kg/m ³)	A	0.07	0.26	0.54	0.85	0.96	0.90	0.65		
PRODUCT	THICKNESS	100HZ	125HZ	160HZ	200HZ	250HZ	315HZ	400HZ	500HZ	630HZ	800HZ	1000HZ
703 FG	2"	0.18	0.21	0.33	0.50	0.76	0.94	1.10	1.16	1.17	1.17	1.15
703	3"	0.29	0.42	0.76	1.02	0.21	0.29	1.30	1.27	1.20	1.15	1.14

Owens Corning Fiberglass Batts (fluffy pink), on the wall, and 16" from the wall

PRODUCT	THICKNESS	MOUNTING	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
Unfaced	2.5" R8	on wall	0.21	0.62	0.93	0.92	0.91	1.03	0.85
Unfaced	2.5" R8	16" air	0.59	0.84	0.79	0.94	0.96	1.12	0.90
Unfaced	3.5" R11	on wall	0.34	0.85	1.09	0.97	0.97	1.12	0.95
Unfaced	3.5" R11	16" air	0.80	0.98	1.01	1.04	0.98	1.15	1.00
Paper Out	3.5" R11	on wall	0.58	1.11	1.16	0.61	0.40	0.21	0.80
Unfaced	6.25" R19	on wall	0.64	1.14	1.09	0.99	1.00	1.21	1.05
Unfaced	6.25" R19	16" air	0.96	1.03	1.13	1.02	1.04	1.13	1.05
Paper Out	6.25" R19	on wall	0.94	1.33	1.02	0.71	0.56	0.39	0.90
Unfaced	12"	on wall	1.14	1.09	1.09	0.99	1.00	1.21	

Roxul Rigid Rockwool

PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
RXL 40	1" (25mm)	7.4 pcf (118 kg/m ³)	0.07	0.32	0.77	1.04	1.05	1.05	0.80
RXL 60	1" (25mm)	7.4 pcf (118 kg/m ³)	0.08	0.33	0.78	1.03	1.02	1.04	0.80
RXL 80	1" (25mm)	8.0 pcf (128 kg/m ³)	0.11	0.31	0.82	1.01	1.02	1.01	0.80
AFB	1" (25mm)	3.0 pcf (48 kg/m ³)	0.14	0.25	0.65	0.90	1.01	1.01	0.70
RXL 40	1.5" (25mm)	4.9 pcf (79 kg/m ³)	0.18	0.48	0.96	1.09	1.05	1.05	0.90
RXL 60	1.5" (25mm)	6.0 pcf (96 kg/m ³)	0.17	0.62	1.00	1.05	1.01	1.01	0.90
RHF / RHT 80	1.5" (25mm)	5.9 pcf (94 kg/m ³)	0.17	0.58	1.06	1.07	1.00	0.99	0.95
RXL 80	1.5" (25mm)	8.0 pcf (128 kg/m ³)	0.21	0.64	0.92	1.00	0.95	1.01	0.90
AFB	1.5" (33mm)	3.0 pcf (48 kg/m ³)	0.18	0.44	0.94	1.04	1.02	1.03	0.85
RHT 40	1.5" (25mm)	3.5 pcf (56 kg/m ³)	0.15	0.47	0.98	1.06	1.02	1.02	0.90
RHT 60	1.5" (25mm)	4.4 pcf (70 kg/m ³)	0.19	0.55	1.03	1.06	1.02	1.01	0.90
RXL 40	2" (51mm)	4.0 pcf (64 kg/m ³)	0.26	0.68	1.12	1.10	1.03	1.04	1.00
RXL 60	2" (51mm)	6.0 pcf (96 kg/m ³)	0.32	0.81	1.06	1.02	0.99	1.04	0.95
RHF / RHT 80	2" (51mm)	5.9 pcf (94 kg/m ³)	0.39	0.84	1.08	1.01	1.02	1.01	1.00
RXL 80	2" (51mm)	8.0 pcf (128 kg/m ³)	0.43	0.78	0.90	0.97	0.97	1.00	0.90
Safe	2" (51mm)	4.5 pcf (72 kg/m ³)	0.26	0.68	1.12	1.10	1.03	1.04	1.00
AFB	2" (51mm)	2.5 pcf (40 kg/m ³)	0.28	0.60	1.09	1.09	1.07	1.07	0.95
RHT 40	2" (51mm)	3.5 pcf (56 kg/m ³)	0.26	0.68	1.14	1.13	1.06	1.07	1.00
RHT 60	2" (51mm)	4.4 pcf (70 kg/m ³)	0.26	0.71	1.14	1.09	1.04	1.03	1.00
RXL 40	3" (75mm)	4.0 pcf (64 kg/m ³)	0.63	0.95	1.14	1.01	1.03	1.04	1.05
RXL 60	3" (75mm)	6.0 pcf (96 kg/m ³)	0.78	0.89	1.04	0.98	1.01	1.02	1.00
RHF / RHT 80	3" (75mm)	5.9 pcf (94 kg/m ³)	0.68	0.92	1.08	1.03	1.03	1.03	1.10
RXL 80	3" (75mm)	8.0 pcf (128 kg/m ³)	0.75	0.82	0.89	0.94	1.00	1.00	0.90
Safe'n'Sound	3" (75mm)	2.5 pcf (40 kg/m ³)	0.52	0.96	1.18	1.07	1.05	1.05	1.05
Safe	3" (76mm)	4.5 pcf (72 kg/m ³)	0.63	0.95	1.14	1.01	1.03	1.04	1.05

AFB	3" (75mm)	2.5 pcf (40 kg/m3)	0.52	0.96	1.18	1.07	1.05	1.05	1.05
RHT 40	3" (75mm)	3.5 pcf (56 kg/m3)	0.62	1.03	1.20	1.10	1.08	1.10	1.10
RHT 60	3" (75mm)	4.4 pcf (70 kg/m3)	0.65	0.94	1.13	1.07	1.06	1.04	1.10
RXL 40	4" (100mm)	4.0 pcf (64 kg/m3)	1.03	1.07	1.12	1.04	1.07	1.08	1.10
RHF / RHT 80	4" (100mm)	5.9 pcf (94 kg/m3)	1.00	0.95	1.06	1.04	1.06	1.08	1.05
Safe	4" (100mm)	4.5 pcf (72 kg/m3)	1.03	1.07	1.12	1.04	1.07	1.08	1.10
AFB	4" (100mm)	2.5 pcf (40 kg/m3)	0.86	1.11	1.20	1.07	1.08	1.07	1.10
RHT 40	4" (100mm)	3.5 pcf (56 kg/m3)	1.07	1.01	1.07	1.06	1.07	1.16	1.05
RHT 60	4" (100mm)	4.4 pcf (70 kg/m3)	0.92	1.04	1.07	1.07	1.07	1.08	1.05

Rockwool.com Note, Roxul may be a Canadian/USA subsidiary of Rockwool.

PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
RW5	1.25" (30mm)	100kg/m3	0.10	0.40	0.80	0.90	0.90	0.90	
RW3	2" (50mm)	60kg/m3	0.11	0.60	0.96	0.94	0.92	0.82	
RW6	2" (50mm)	140kg/m3	0.20	0.75	0.90	0.85	0.90	0.85	
RW3	3" (75mm)	60kg/m3	0.34	0.95	1.00	0.82	0.87	0.86	
RW5	3" (75mm)	100kg/m3	0.40	0.75	0.90	0.80	0.90	0.85	
RWA45		45kg/m3							
RW5 300mm gap	1.25" (30mm)	100kg/m3	0.40	0.75	0.90	0.80	0.90	0.85	
RW6 300mm gap	2" (50mm)	140kg/m3	0.65	0.55	0.75	0.85	0.75	0.85	

[BBC 1992-10.pdf](#). Several good LF absorbers Helmholtz, Membrane studied here

PRODUCT	THICKNESS	40HZ	50HZ	63HZ	80HZ	100HZ	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	8000HZ
RW2 fig3	10.6" (270mm)		1.05	1.45	1.18	1.05	1.07	1.05	1.10	1.00	0.95	0.95	0.90
RW2 fig3	7" (180mm)		0.40	0.65	0.85	1.25	0.95	1.10	1.00	0.95	0.95	1.00	0.90
A10 fig21,22	7.2" (184mm)		0.70	1.00	0.75	0.63	0.45	0.50	0.50	0.30	0.25	0.20	0.20

[Johns Manville](#) or [here](#)

Dennis Erskine likes for Home Theatre

- 1" Coated Insul-Shield Black (IS Black)
- 1" Linacoustic (use the roll type, not sheet type)
- [Picture of Linacoustic RC 1 inch, 100 ft x 47.5 inch roll, and a bit of GoM, provided by Clarence](#)

Rod Gervais likes [Superduct for duct lining](#)

PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
Linacoustic RC	0.5" (13mm)		0.07	0.20	0.44	0.66	0.84	0.93	0.55
Permacote Linacoustic Standard	0.5" (13mm)		0.03	0.21	0.45	0.72	0.87	0.94	0.55
Polyester Insultone	0.5" (13mm)		0.05	0.10	0.18	0.28	0.39	0.48	0.25
Linacoustic RC	1" (25mm)		0.08	0.31	0.64	0.84	0.97	1.03	0.70
Permacote® Linacoustic® R-300	1" (25mm)	3.0 pcf (48 kg/m3)	0.04	0.26	0.69	1.00	1.07	1.02	0.75
Permacote Linacoustic Standard	1" (25mm)		0.09	0.31	0.67	0.91	1.01	0.98	0.70
Whispertone	1" (25mm)	6.0 pcf (96 kg/m3)	0.08	0.31	0.78	1.00	1.03	1.02	
IS 150	1" (25mm)	1.5pcf (24kg/m3)	0.07	0.24	0.63	0.87	1.00	1.02	0.70
IS Black	1" (25mm)	1.5pcf (24kg/m3)	0.09	0.29	0.67	0.89	1.03	0.99	0.70
IS 225	1" (25mm)	2.25pcf (36kg/m3)	0.08	0.27	0.69	0.95	1.05	1.02	0.75
IS 300	1" (25mm)	3pcf (48kg/m3)	0.06	0.29	0.75	0.99	1.04	1.02	0.75
IS 600	1" (25mm)	6pcf (96kg/m3)	0.10	0.35	0.85	1.04	1.05	1.03	0.80
Polyester Insultone	1" (25mm)		0.08	0.18	0.33	0.49	0.61	0.66	0.40
Linacoustic RC	1.5" (38mm)		0.10	0.47	0.85	1.01	1.02	0.99	0.85
Permacote® Linacoustic® R-300	1.5" (38mm)	3.0 pcf (48 kg/m3)	0.14	0.52	1.01	1.07	1.03	1.97	1.90
Permacote Linacoustic Standard	1.5" (38mm)		0.21	0.53	0.90	1.03	1.01	1.00	0.85
IS 100	1.5" (38mm)	1pcf (16kg/m3)	0.15	0.37	0.81	0.96	1.04	1.01	0.80
IS 300	1.5" (38mm)	3pcf (48kg/m3)	0.13	0.62	1.07	1.08	1.06	1.04	0.95
IS 600	1.5" (38mm)	6pcf (96kg/m3)	0.14	0.60	1.01	1.08	1.06	1.05	0.95
Linacoustic RC	2" (51mm)		0.25	0.66	1.00	1.05	1.02	1.01	0.95
Permacote® Linacoustic® R-300	2" (51mm)	3.0 pcf (48 kg/m3)	0.26	0.73	1.10	1.10	1.04	1.03	1.00
Permacote Linacoustic Standard	2" (51mm)		0.20	0.57	1.02	1.03	1.02	1.03	0.90
IS 150	2" (51mm)	1.5pcf (24kg/m3)	0.24	0.68	1.10	1.13	1.10	1.07	1.00
IS Black	2" (51mm)	1.5pcf (24kg/m3)	0.23	0.73	1.05	1.13	1.06	1.07	1.00
IS 225	2" (51mm)	2.25pcf (36kg/m3)	0.19	0.88	1.15	1.14	1.10	1.07	1.05
IS 300	2" (51mm)	3pcf (48kg/m3)	0.24	1.00	1.11	1.08	1.06	1.05	1.05
IS 600	2" (51mm)	6pcf (96kg/m3)	0.38	0.93	1.10	1.07	1.07	1.07	1.05
IS 150 FSK	2" (51mm)	1.5pcf (24kg/m3)	0.25	1.09	1.11	0.58	0.26	0.12	0.75
IS 225 FSK	2" (51mm)	2.25pcf (36kg/m3)	0.32	1.17	1.00	0.75	0.42	0.26	0.85
IS 300 FSK	2" (51mm)	3pcf (48kg/m3)	0.41	1.13	0.85	0.73	0.38	0.16	0.75
IS 600 FSK	2" (51mm)	6pcf (96kg/m3)	0.49	0.26	0.68	0.47	0.33	0.22	0.45

TheaterShield Plus									
812	1" (25mm)	1.5pcf (24kg/m3)	0.07	0.24	0.63	0.87	1.00	1.02	0.70
812	2" (51mm)	1.5pcf (24kg/m3)	0.24	0.68	1.10	1.13	1.10	1.07	1.00
813	1" (25mm)	2.25pcf (36kg/m3)	0.08	0.27	0.69	0.95	1.05	1.02	0.75
813	2" (51mm)	2.25pcf (36kg/m3)	0.19	0.88	1.15	1.14	1.10	1.07	1.05
814	1" (25mm)	3pcf (48kg/m3)	0.06	0.29	0.75	0.99	1.04	1.02	0.75
814	2" (51mm)	3pcf (48kg/m3)	0.24	1.00	1.11	1.08	1.06	1.05	1.05
815	1" (25mm)	4.25pcf (68kg/m3)	0.03	0.32	0.80	1.04	1.05	1.05	0.80
815	2" (51mm)	4.25pcf (68kg/m3)	0.27	0.91	1.11	1.09	1.09	1.09	1.05
817	1" (25mm)	6pcf (96kg/m3)	0.10	0.35	0.85	1.04	1.05	1.03	0.80
817	2" (51mm)	6pcf (96kg/m3)	0.38	0.93	1.10	1.07	1.07	1.07	1.05
Spin-Glas® Board	1" (25mm)	2.25pcf (36kg/m3)	0.08	0.27	0.69	0.95	1.05	1.02	0.75
Spin-Glas® Board	2" (51mm)	2.25pcf (36kg/m3)	0.19	0.88	1.15	1.14	1.10	1.07	1.05
Spin-Glas® Board	1" (25mm)	3pcf (48kg/m3)	0.06	0.26	0.61	0.86	0.99	1.03	0.70
Spin-Glas® Board	2" (25mm)	3pcf (48kg/m3)	0.17	0.80	1.16	1.15	1.11	1.10	1.05
Spin-Glas® Board	1" (25mm)	4.25pcf (68kg/m3)	0.03	0.32	0.80	0.86	1.04	1.05	0.80
Spin-Glas® Board	2" (25mm)	4.25pcf (68kg/m3)	0.27	0.91	1.11	1.09	1.09	1.09	1.05
Spin-Glas® Board	1" (25mm)	6pcf (96.2kg/m3)	0.10	0.35	0.85	1.04	1.05	1.03	0.80
Spin-Glas® Board	2" (25mm)	6pcf (96.2kg/m3)	0.38	0.93	1.10	1.07	1.07	1.07	1.05

[IIG Intelligent Insulation \(Calsite/Johns Manville Joint Venture\)](#)

PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
MinWool-1200 Industrial Board 1240	1.5" (38mm)	4 pcf (64 kg/m ³)	0.13	0.48	1.02	1.08	1.02	1.01	0.90
MinWool-1200 Industrial Board 1240	2" (51mm)	4 pcf (64 kg/m ³)	0.20	0.61	1.07	1.06	1.04	1.07	0.95
MinWool-1200 Industrial Board 1240	4" (102mm)	4 pcf (64 kg/m ³)	0.88	1.14	1.17	1.08	1.06	1.10	1.10
MinWool-1200 Industrial Board 1240	6" (152mm)	4 pcf (64 kg/m ³)	0.32	1.14	1.11	1.09	1.06	1.07	1.10
MinWool-1200 Industrial Board 1260	1.5" (38mm)	6 pcf (96 kg/m ³)	0.18	0.62	1.08	1.08	1.03	1.07	0.95
MinWool-1200 Industrial Board 1260	2" (51mm)	6 pcf (96 kg/m ³)	0.25	0.85	1.15	1.10	1.04	1.06	1.05
MinWool-1200 Industrial Board 1260	3" (76mm)	6 pcf (96 kg/m ³)	0.80	1.07	1.11	0.99	0.98	0.96	1.05
MinWool-1200 Industrial Board 1260	4" (102mm)	6 pcf (96 kg/m ³)	0.99	1.01	1.10	1.03	1.03	1.05	1.05
MinWool-1200 Industrial Board 1280	1.5" (38mm)	8 pcf (128 kg/m ³)	0.13	0.64	1.08	1.08	1.04	1.07	0.95
MinWool-1200 Industrial Board 1280	2" (51mm)	8 pcf (128 kg/m ³)	0.32	0.90	1.11	1.07	1.01	1.05	1.00
MinWool-1200 Industrial Board 1280	4" (102mm)	8 pcf (128 kg/m ³)	1.11	0.91	1.03	1.03	1.06	1.07	1.00

[CertainTeed](#)

Dennis Erskine likes for Home Theatre
- AcoustaBlanket Black (rolls)

PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
ToughGard Duct Liner 200	0.5" (13mm)		0.04	0.10	0.24	0.41	0.56	0.73	0.35
ToughGard 2 Duct Liner 200	0.5" (13mm)		0.06	0.15	0.33	0.56	0.76	0.91	0.45
ToughGard Duct Liner 300	0.5" (13mm)		0.05	0.12	0.29	0.51	0.68	0.80	0.40
ToughGard 2 Duct Liner 300	0.5" (13mm)		0.05	0.12	0.29	0.51	0.68	0.80	0.40
AcoustaBlanket Black 200	0.5" (13mm)	2.0pcf (32kg/m3)	0.03	0.12	0.35	0.61	0.75	0.84	0.45
OEM Acoustical Board	5/8" (16mm)		0.03	0.10	0.38	0.66	0.80	0.90	0.50
OEM 250	5/8" (16mm)	2.5 pcf	0.03	0.11	0.37	0.65	0.79	0.88	0.50
OEM Acoustical Board	1" (25mm)		0.06	0.22	0.63	0.84	0.01	0.94	0.65
OEM 250	1" (25mm)	2.5 pcf	0.07	0.28	0.71	0.90	0.93	0.93	0.70
OEM 300	1" (25mm)	3.0 pcf	0.12	0.52	1.68	0.87	0.93	0.99	0.75
ToughGard 2 Duct Liner 150	1" (25mm)		0.14	0.29	0.55	0.77	0.94	0.97	0.65
ToughGard Duct Liner 150	1" (25mm)		0.10	0.28	0.50	0.70	0.82	0.83	0.60
ToughGard Duct Liner 200	1" (25mm)		0.10	0.29	0.53	0.72	0.83	0.84	0.60
ToughGard 2 Duct Liner 200	1" (25mm)		0.10	0.29	0.53	0.72	0.83	0.84	0.60
ToughGard Duct Liner 300	1" (25mm)		0.05	0.25	0.57	0.78	0.87	0.89	0.60
ToughGard 2 Duct Liner 300	1" (25mm)		0.05	0.25	0.57	0.78	0.87	0.89	0.60
475 Ultra-Duct Gold	1" (25mm)		0.04	0.20	0.70	0.98	1.05	1.01	0.75
800 Ultra-Duct Gold	1" (25mm)		0.07	0.22	0.77	1.00	1.03	1.05	0.75
AcoustaBlanket Black 150	1" (25mm)	1.5pcf (24kg/m3)	0.10	0.32	0.66	0.84	0.91	0.91	0.70
AcoustaBoard Black 225	1" (25mm)	2.25pcf (36kg/m3)	0.06	0.30	0.58	0.85	0.91	0.94	0.65
AcoustaBoard Black 300	1" (25mm)	3pcf (48kg/m3)	0.05	0.26	0.69	0.89	0.92	0.96	0.70
OEM 250	1.5" (38mm)	2.5 pcf	0.11	0.46	0.93	0.96	0.97	0.96	0.85
OEM 300	1.5" (38mm)	3.0 pcf	0.17	0.50	1.98	1.03	0.96	0.97	0.95
ToughGard Duct Liner 150	1.5" (38mm)		0.20	0.40	0.71	0.86	0.91	0.85	0.70
ToughGard 2 Duct Liner 150	1.5" (38mm)		0.16	0.47	0.77	0.96	1.04	1.00	0.80
ToughGard (and 2) Duct Liner 200	1.5" (38mm)		0.20	0.42	0.80	0.93	0.93	0.88	0.75
ToughGard (and 2) Duct Liner 300	1.5" (38mm)		0.20	0.46	0.82	0.94	0.95	0.91	0.80
800 Ultra-Duct Gold	1.5" (38mm)		0.14	0.46	1.02	1.10	1.07	1.05	0.90
AcoustaBlanket Black 150	1.5" (38mm)	1.5pcf (24kg/m3)	0.16	0.53	0.95	1.02	1.03	1.00	0.90
AcoustaBoard Black 225	1.5" (38mm)	2.25pcf (36kg/m3)	0.12	0.48	0.83	0.90	0.90	0.89	0.80
AcoustaBoard Black 300	1.5" (38mm)	3pcf (48kg/m3)	0.10	0.51	0.89	0.95	0.92	0.93	0.80
OEM 250	2" (51mm)	2.5 pcf	0.23	0.71	1.03	0.99	0.96	0.97	0.90
OEM 300	2" (50mm)	3.0 pcf	0.17	0.76	1.05	1.02	0.95	0.96	0.95
ToughGard (and 2) Duct Liner 150	2" (51mm)		0.22	0.49	0.83	0.89	0.89	0.91	0.80

OFI-32	2" (51mm)	2 pcf (32 kg/m3)	0.11	0.11	0.23	0.38	0.50	0.71	0.86	0.97	1.05	1.09	1.11	1.11	1.11	1.09	1.0
OFI-40	2" (51mm)	2.5 pcf (40 kg/m3)	0.09	0.11	0.21	0.44	0.59	0.79	1.04	1.17	1.21	1.22	1.19	1.14	1.13	1.11	1.0
OFI-48	2" (51mm)	3 pcf (48 kg/m3)	0.13	0.19	0.21	0.33	0.50	0.76	0.94	1.10	1.16	1.17	1.17	1.15	1.12	1.11	1.0
OFI-64	2" (51mm)	4 pcf (64 kg/m3)	0.07	0.16	0.22	0.37	0.54	0.85	1.01	1.17	1.19	1.19	1.19	1.16	1.12	1.11	1.1
OFI-72	2" (51mm)	4.5 pcf (72 kg/m3)	0.02	0.24	0.32	0.50	0.71	0.95	1.08	1.14	1.19	1.18	1.15	1.11	1.07	1.05	1.0
OFI-28	2.5" (64mm)	1.8 pcf (28.83 kg/m3)	0.21	0.27	0.41	0.52	0.69	0.89	1.07	1.17	1.22	1.24	1.26	1.24	1.21	1.19	1.1
OFI-48	3" (76mm)	3 pcf (48 kg/m3)	0.23	0.29	0.42	0.78	1.02	1.21	1.29	1.30	1.27	1.20	1.15	1.14	1.10	1.10	1.0
OFI-16	3.5" (89mm)	1.1 pcf (17.62 kg/m3)	0.29	0.36	0.55	0.77	0.98	1.15	1.25	1.31	1.29	1.26	1.23	1.18	1.17	1.15	1.1
OFI-48	4" (102mm)	3 pcf (48 kg/m3)	0.55	0.69	0.92	1.17	1.24	1.24	1.23	1.22	1.19	1.16	1.13	1.10	1.11	1.11	1.0
OFI-16	6" (152mm)	1.1 pcf (17.62 kg/m3)	0.48	0.84	1.09	1.30	1.45	1.45	1.44	1.34	1.26	1.18	1.16	1.13	1.12	1.12	1.1
PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC								
OFI-40 FSK	1" (25mm)		0.20	0.61	0.72	0.98	0.68	0.30	0.75								
OFI-48 FSK	1" (25mm)		0.15	0.71	0.70	0.89	0.65	0.39	0.75								
BMC	1" (25mm)		0.05	0.28	0.72	0.95	1.02	1.01	0.75								
OFI-40 FSK	1.5" (38mm)		0.60	0.74	1.17	0.96	0.57	0.33	0.85								
BMC	1.5" (38mm)		0.11	0.50	1.04	1.09	1.07	1.06	0.95								
OFI-48 FSK	2" (51mm)		0.51	1.10	1.13	0.82	0.53	0.33	0.90								
BMC	2" (51mm)		0.17	0.78	1.17	1.12	1.09	1.08	1.05								
BMC	3" (76mm)		0.56	1.23	1.29	1.15	1.09	1.08	1.20								
BMC	4" (101mm)		0.87	1.32	1.24	1.14	1.10	1.09	1.20								

Isover Industriplader Denmark

PRODUCT	THICKNESS	DENSITY	50HZ	63HZ	80HZ	100HZ	125HZ	160HZ	200HZ	250HZ	315HZ	400HZ	500HZ	630HZ	800HZ	1000HZ	1250H
IP1	50mm	30 kg/m3	0.02	0.05	0.03	0.12	0.08	0.33	0.47	0.63	0.75	0.95	1.00	0.99	1.01	1.02	1.03
IP2	50mm	60 kg/m3	0.03	0.05	0.03	0.11	0.12	0.38	0.66	0.81	0.94	1.10	1.11	1.03	1.02	1.00	1.02

IsoWool - British Gypsum-Isover

PRODUCT	THICKNESS	100HZ	125HZ	160HZ	200HZ	250HZ	315HZ	400HZ	500HZ	630HZ	800HZ	1000HZ	1250HZ	1600HZ	2000HZ	2500HZ	3
Multi Slab	50mm	0.18	0.17	0.31	0.48	0.45	0.55	0.76	0.80	0.88	0.86	0.89	0.92	0.96	0.97	0.95	0
HighPerf Slab	50mm	0.20	0.27	0.39	0.46	0.54	0.68	0.95	0.94	0.89	1.04	1.07	1.02	1.01	0.96	1.01	1

Isover Germany

PRODUCT	THICKNESS	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ
SSP2	2"	0.26	0.60	0.95	1.07	1.01	1.04

Ursa Germany

PRODUCT	THICKNESS	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ
AKP2/V	2"	0.22	0.53	0.99	1.05	1.03	1.04

Insulco Australia

PRODUCT	THICKNESS	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
ISB3	65mm	0.32	0.45	0.58	0.62	0.63	0.55	
ISB4	75mm	0.38	0.56	0.68	0.70	0.69	0.82	0.65
ISB5	85mm	0.45	0.69	0.82	0.80	0.80	0.93	0.80
Acousti-Therm R1.5	65mm	0.32	0.66	1.03	0.97	0.97	0.89	0.90

Acousti-Therm R2.0	75mm	0.31	0.73	1.08	1.00	0.97	0.95	0.95
Acousti-Therm R2.5	95mm	0.43	0.98	1.25	1.10	1.02	0.98	1.10
Building Blanket R1.3	50mm	0.25	0.55	0.89	0.95	0.93	0.92	0.85
Vapa-Chek R2.0 foil	75mm	0.40	0.90	1.20	0.60	0.40	0.25	0.75
Ductliner (nil)	25mm	0.10	0.23	0.51	0.79	0.87	0.93	0.60
Ductliner (black matt)	25mm	0.11	0.26	0.57	0.82	0.92	0.95	0.65
Ductliner (Perf Foil)	25mm	0.10	0.24	0.64	0.87	0.95	0.82	0.70
Ductliner (nil)	50mm	0.24	0.61	1.00	1.07	1.03	1.04	0.95
Ductliner (black matt)	50mm	0.29	0.73	1.11	1.11	1.04	1.05	1.00
Ductliner (perf foil)	50mm	0.25	0.65	1.08	1.11	0.98	0.94	0.95
Semi Rigid IB (nil)	25mm	0.07	0.24	0.61	0.88	0.93	0.95	0.65
Semi Rigid IB (black matt)	25mm	0.07	0.25	0.63	0.89	1.00	0.99	0.70
Semi Rigid IB (perf foil)	25mm	0.08	0.22	0.63	0.93	1.01	0.87	0.70
Semi Rigid IB (nil)	50mm	0.41	0.84	1.02	1.25	1.22	1.16	1.10
Semi Rigid IB (black matt)	50mm	0.46	0.91	1.06	1.12	1.12	1.11	1.05
Semi Rigid IB (perf foil)	50mm	0.36	0.87	1.12	1.19	1.07	1.00	1.05
Semi Rigid IB (perf metal)	50mm	0.19	0.64	1.12	1.09	1.01	0.92	0.95
Semi Rigid IB (nil)	75mm	0.41	0.94	1.14	1.08	1.12	1.06	1.05
Semi Rigid IB (perf foil)	75mm	0.52	1.07	1.23	1.11	1.15	1.00	1.15
Semi Rigid IB (nil)	100mm	0.62	1.19	1.21	1.07	1.05	1.05	1.15
High Temp (nil)	25mm	0.07	0.24	0.64	0.92	0.97	1.01	0.70
High Density (black matt)	25mm	0.07	0.26	0.69	0.96	1.02	1.02	0.75
High Density (perf foil)	25mm	0.09	0.25	0.74	1.04	1.02	0.93	0.75
High Density (nil)	50mm	0.38	0.73	1.20	1.17	1.15	1.11	1.05
High Density (perf foil)	50mm	0.35	0.76	1.18	1.13	1.03	0.90	1.00
High Density (nil)	75mm	0.55	1.15	1.23	1.09	1.12	0.12	1.15

Autex Polyester Acoustic Blanket New Zealand

Product	Sound Absorption Coefficients Frequency (Hz)							Density (kg/m³)	Thickness (mm)
	125	250	500	1000	2000	4000	NRC		
AAB 14-25	0.15	0.25	0.35	0.45	0.45	0.50	0.40	14kg/m3	25
AAB 14-50	0.35	0.50	0.65	0.70	0.70	0.70	0.65	14kg/m3	50
AAB 20-25	0.20	0.35	0.45	0.55	0.60	0.65	0.50	20kg/m3	25
AAB 120-50	0.25	0.50	0.70	0.80	0.80	0.80	0.80	20kg/m3	50
AAB 20-75	0.35	0.60	0.85	0.95	0.90	0.95	0.85	20kg/m3	75
AAB 20-100*	0.50	0.85	1.00	0.95	0.95	1.00	0.95	20kg/m3	100
AAB 25-25	0.15	0.30	0.50	0.65	0.75	0.75	0.55	25kg/m3	25
AAB 25-50	0.25	0.50	0.70	0.80	0.80	0.80	0.70	25kg/m3	50
AAB 25-75*	0.40	0.65	0.90	1.00	0.95	1.00	0.90	25kg/m3	75
AAB 25-100	0.50	1.00	1.10	1.05	1.05	1.05	1.00	25kg/m3	100
AAB 32-25	0.15	0.25	0.50	0.65	0.80	0.80	0.55	32kg/m3	25
AAB 32-50*	0.30	0.50	0.80	0.95	0.90	0.90	0.80	32kg/m3	50
AAB 32-75	0.20	0.55	0.90	1.00	1.00	1.00	0.90	32kg/m3	75
AAB 32-100	0.50	1.00	1.10	1.05	1.05	1.05	1.05	32kg/m3	100
AAB 35-25*	0.08	0.34	0.64	0.81	0.91	0.90	0.70	35kg/m3	25
AAB 35-50*	0.45	0.85	1.00	0.95	0.95	1.00	0.90	35kg/m3	50
AAB 40-25	0.10	0.20	0.45	0.65	0.80	0.80	0.55	40kg/m3	25
AAB 40-50	0.30	0.55	0.90	0.95	0.95	0.95	0.85	40kg/m3	50
AAB 40-75	0.25	0.60	0.95	1.05	1.05	1.00	0.95	40kg/m3	75
AAB 40-100	0.45	1.05	1.15	1.05	1.05	1.05	1.05	40kg/m3	100
AAB 48-25	0.15	0.35	0.60	0.75	0.85	0.95	0.65	48kg/m3	25
AAB 48-50	0.30	0.55	0.90	0.95	0.95	0.95	0.90	48kg/m3	50
AAB 48-75	0.40	0.80	1.15	1.10	1.05	1.05	1.05	48kg/m3	75
AAB 48-100	0.50	1.10	1.15	1.10	1.10	1.05	1.10	48kg/m3	100

Delta Insulation

[illegible]

CSR Bradford - Rockwool (Australia)

PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	5000HZ	NRC	FLOW RESISTIVITY
Acousticon	75mm	kg/m3	0.14	1.02	0.82	0.42	0.38	0.29	0.38	0.65	
Glasswool Anticon Roofing Blanket - R1.5 Thermofoil	55mm	kg/m3	0.34	0.86	1.04	0.41	0.20	0.07	0.04	0.65	
Glasswool Anticon Roofing Blanket - R2.0 Thermofoil	75mm	kg/m3	0.60	1.21	0.90	0.41	0.28	0.10	0.12	0.70	
Glasswool Anticon Roofing Blanket - R2.5 Thermofoil	95mm	kg/m3	0.72	1.43	0.82	0.43	0.26	0.14	0.08	0.75	
Glasswool Building Blanket - R1.2	50mm	kg/m3	0.25	0.65	0.80	0.90	0.90	1.00	1.05	0.80	
Glasswool Building Blanket - R1.8	75mm	kg/m3	0.35	0.80	0.85	0.90	0.90	1.10	1.05	0.85	
Glasswool Ceiling Batts	105mm	kg/m3	0.60	0.98	1.03	1.05	1.14	1.10	1.09	1.05	0.5 x 10 ⁴ mks Rayls/m
Glasswool Ductel - Perforated Foil	25mm	kg/m3	0.06	0.38	0.93	1.10	1.10	1.00	0.87	0.88	
Glasswool Ductel - BMF	25mm	kg/m3	0.14	0.31	0.82	1.08	1.13	1.10	1.07	0.83	
Glasswool Ductel - Perforated Foil	50mm	kg/m3	0.35	0.91	1.15	1.12	1.08	0.93	0.85	1.06	
Glasswool Flexitel - Nil/Plain	25mm	kg/m3	0.13	0.31	0.55	0.76	0.88	0.95	0.98	0.62	
Glasswool Flexitel - Perforated Foil	25mm	kg/m3	0.13	0.33	0.75	0.99	1.12	0.94	0.89	0.80	
Glasswool Flexitel - Nil/Plain	50mm	kg/m3	0.42	0.64	0.92	1.07	0.98	1.02	1.03	0.90	
Glasswool Flexitel - Perforated Foil	50mm	kg/m3	0.39	0.84	1.08	1.20	1.06	1.01	0.95	1.05	
Glasswool Quietel	13mm	kg/m3	0.06	0.08	0.28	0.62	0.86	1.06	1.04	0.45	
Glasswool Quietel	25mm	kg/m3	0.07	0.28	0.74	1.04	1.13	1.09	1.11	0.80	
Glasswool Quietel	50mm	kg/m3	0.36	0.81	1.12	1.18	1.11	1.12	1.22	1.05	
Glasswool Supertel	25mm	kg/m3	0.12	0.41	0.63	0.90	1.01	0.99	0.94	0.74	
Glasswool Supertel	50mm	kg/m3	0.27	0.75	1.12	1.12	1.07	1.04	1.03	1.01	
Glasswool Supertel - Perforated Foil	50mm	kg/m3	0.39	0.72	1.14	1.19	1.05	0.98	0.90	1.02	
Glasswool Supertel	75mm	kg/m3	0.52	0.94	1.24	1.13	1.06	1.09	1.02	1.09	
Glasswool Ultratel	25mm	kg/m3	0.03	0.24	0.65	0.98	1.07	1.03	1.01	0.73	
Glasswool Ultratel - Perforated	25mm	kg/m3	0.12	0.31	0.81	1.09	1.09	0.91	0.89	0.77	
Glasswool Ultratel	50mm	kg/m3	0.34	0.65	1.23	1.11	1.08	1.02	0.98	1.02	
Glasswool Ultratel - Perforated Foil	75mm	kg/m3	0.69	1.19	1.15	1.09	1.03	0.92	0.90	1.11	
Glasswool Wall Floor Batts R2.0	95mm	kg/m3	0.57	0.78	0.97	0.91	0.96	1.00	0.95	0.90	0.5 x 10 ⁴ mks Rayls/m
Acousticlاد Fibertex R60			0.29	0.70	1.19	1.04	1.14	1.06	1.07	0.93	
Acousticlاد Fibertex R60 CF/BMF			0.69	1.08	1.20	1.14	1.15	1.13	1.08	0.98	
Acousticlاد Fibertex R80			0.36	0.91	1.19	1.20	1.07	1.05	1.19	0.98	
Acousticlاد Fibertex R80 CF/BMF			0.58	1.10	1.20	1.17	0.97	0.96	0.87	0.98	
Fibertex 350 Rockwool	25mm		0.18	0.29	0.69	0.86	1.05	1.20	1.16	0.71	2.2 x 10 ⁴ Rays/m
Fibertex 350 Rockwool	25mm		0.14	0.38	0.87	1.07	1.06	0.90	0.79	0.85	2.2 x 10 ⁴ Rays/m
Fibertex 350 Rockwool	50mm		0.21	0.69	1.13	1.15	1.16	1.18	1.14	1.05	2.2 x 10 ⁴ Rays/m
Fibertex 350 Rockwool	50mm		0.31	0.83	1.16	0.99	0.90	0.78	0.73	0.97	2.2 x 10 ⁴ Rays/m
Fibertex 450 Rockwool	25mm		0.08	0.80	0.68	0.93	1.05	1.10	0.98	0.75	3.3 x 10 ⁴ Rays/m
Fibertex 450 Rockwool	50mm		0.36	0.91	1.19	1.20	1.07	1.05	1.19	1.09	3.3 x 10 ⁴ Rays/m
Fibertex 450 Rockwool - Thermofoil HD	25mm		0.06	0.20	0.62	0.80	0.89	0.81	0.76	0.60	3.3 x 10 ⁴ Rays/m
Fibertex 450 Rockwool - Perforated	50mm		0.27	0.78	1.23	1.17	1.13	1.00	0.94	1.10	3.3 x 10 ⁴ Rays/m
Fibertex 650 Rockwool	25mm		0.21	0.29	0.52	1.14	1.02	0.97	1.06	0.74	5.0 x 10 ⁴ Rays/m
Fibertex 650 Rockwool	50mm		0.59	0.97	1.18	1.00	1.04	1.02	1.03	1.05	5.0 x 10 ⁴ Rays/m
Fibertex Acoustic Baffle-602	50mm		0.17	0.41	0.87	1.22	1.12	0.95	0.90	0.91	
Fibertex Hd Rockwool	25mm	120kg/m ³	0.02	0.30	0.82	1.10	1.06	1.02	1.20	0.77	7.0 * 10 ⁴ mks Rayls/m
Fibertex Hd Rockwool	50mm	120kg/m ³	0.50	0.74	1.20	1.20	0.98	1.14	1.19	0.95	7.0 * 10 ⁴ mks Rayls/m
Fibertex Rockwool Building Blanket Plain	50mm		0.24	0.73	0.93	1.10	1.12	1.12	1.14	0.95	0.5 x 10 ⁴ mks Rayls/m
Fibertex Rockwool Building Blanket BMF	50mm		0.30	0.75	0.90	0.95	0.95	1.00	1.00	0.90	0.5 x 10 ⁴ mks Rayls/m
Fibertex Rockwool Ductliner Plain	25mm	60kg/m ³	0.18	0.29	0.69	0.86	1.05	1.20	1.16	0.71	2.2 x 10 ⁴ mks Rayls/m
Fibertex Rockwool Ductliner Plain	50mm	60kg/m ³	0.29	0.70	1.19	1.04	1.14	1.06	1.07	0.93	2.2 x 10 ⁴ mks Rayls/m

Fibertex Rockwool Ductliner BMF	25mm	60kg/m^3	0.15	0.33	0.74	0.94	1.03	1.04	0.98	0.76	2.2 x 10^4 mks Rayls/m						
Fibertex Rockwool Ductliner BMF	50mm	60kg/m^3	0.36	0.76	1.19	1.09	1.03	1.04	0.98	1.01	2.2 x 10^4 mks Rayls/m						
Fibertex Rockwool Ductliner HD Perf Foil	25mm	60kg/m^3	0.14	0.38	0.87	1.07	1.06	0.90	0.79	0.85	2.2 x 10^4 mks Rayls/m						
Fibertex Rockwool Ductliner HD Perf Foil	50mm	60kg/m^3	0.31	0.83	1.16	0.99	0.90	0.78	0.73	0.97	2.2 x 10^4 mks Rayls/m						
PRODUCT	100HZ	125HZ	160HZ	200HZ	250HZ	375HZ	400HZ	500HZ	630HZ	800HZ	1000HZ	1250HZ	1600HZ	2000HZ	2500HZ	3150HZ	4000
Acousticlاد ATF771	0.20	0.30	0.45	0.70	0.85	0.91	1.05	1.05	1.05	1.05	1.00	0.91	1.00	1.00	0.95	1.00	1.00
Acousticlاد ATF772	0.25	0.25	0.45	0.70	0.80	0.90	1.05	1.05	1.00	1.10	1.00	1.00	0.95	1.00	1.00	1.00	0.95
Acousticlاد ATF773	0.20	0.30	0.45	0.70	0.80	1.00	1.00	1.10	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.00
Acousticlاد ATF774	0.40	0.35	0.65	0.85	0.90	1.00	1.00	1.00	1.05	0.95	0.90	0.85	0.80	0.80	0.75	0.70	0.65
Acousticlاد ATF775	0.35	0.35	0.55	0.90	1.10	1.10	1.15	1.10	1.10	1.00	1.00	1.00	0.95	1.00	1.05	0.95	0.95

[from USG, for Thermafiber,taken at Riverbank in 1979](#)

PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
Thermofiber 1"	4pcf	0.06	0.24	0.58	0.81	0.85	0.90		
Thermofiber 1"	6pcf	0.07	0.24	0.62	0.87	0.91	0.91		
Thermofiber 1"	8pcf	0.10	0.37	0.82	0.97	0.91	0.89		
Thermofiber 1"	12pcf	0.09	0.31	0.77	0.96	0.99	0.94		
Thermofiber 2"	4pcf	0.24	0.68	1.08	0.99	0.92	0.92		
Thermofiber 2"	6pcf	0.32	0.81	1.09	1.02	0.94	0.94		
Thermofiber 2"	8pcf	0.35	0.84	1.04	0.96	0.93	0.93		
Thermofiber 2"	12pcf	0.40	0.79	0.94	0.94	0.87	0.87		
Thermofiber 4"	2.5pcf	0.63	1.15	1.15	1.05	1.05	0.94		
Thermofiber 4"	4pcf	0.77	1.14	1.15	1.04	1.04	0.94		
Thermofiber 4"	6pcf	0.84	1.11	1.11	1.05	1.05	0.93		

[Insulco Tasman Insulation \(Australia\)](#)

PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
High Density Nil	25mm	48 kg/m3	0.07	0.24	0.64	0.92	0.97	1.01	0.70
High Density Black	25mm	48 kg/m3	0.07	0.26	0.69	0.96	1.02	1.02	0.75
High Density Perf.	25mm	48 kg/m3	0.09	0.25	0.74	1.04	1.02	0.93	0.75
High Density Nil	50mm	48 kg/m3	0.38	0.73	1.20	1.17	1.15	1.11	1.05
High Density Perf	50mm	48 kg/m3	0.35	0.76	1.18	1.13	1.03	0.90	1.00
High Density Nil	75mm	48 kg/m3	0.55	1.15	1.23	1.09	1.12	1.12	1.15
Semi Rigid Nil	25mm	32 kg/m3	0.07	0.24	0.61	0.88	0.93	0.95	0.65
Semi Rigid Black	25mm	32 kg/m3	0.07	0.25	0.63	0.89	1.00	0.99	0.70
Semi Rigid Perf.	25mm	32 kg/m3	0.08	0.22	0.63	0.93	1.01	0.87	0.70
Semi Rigid Nil	50mm	32 kg/m3	0.41	0.84	1.02	1.25	1.22	1.16	1.10
Semi Rigid Black	50mm	32 kg/m3	0.46	0.91	1.06	1.12	1.12	1.11	1.05
Semi Rigid PerFF	50mm	32 kg/m3	0.36	0.87	1.12	1.19	1.07	1.00	1.05
Semi Rigid PerFM	50mm	32 kg/m3	0.19	0.64	1.12	1.09	1.01	0.92	0.95
Semi Rigid Nil	75mm	32 kg/m3	0.41	0.94	1.14	1.08	1.12	1.06	1.05
Semi Rigid Perf	75mm	32 kg/m3	0.52	1.07	1.23	1.11	1.15	1.00	1.15
Semi Rigid Perf	100mm	32 kg/m3	0.62	1.19	1.21	1.07	1.05	1.05	1.15

[Manson Akousti-Liner R](#)

PRODUCT	THICKNESS	MOUNTING	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
Akousti-Liner 5/8" (18mm)	A		0.03	0.14	0.40	0.70	0.85	0.96	0.50
Akousti-Liner 1" (25mm)	A		0.07	0.30	0.72	0.96	1.04	1.05	0.75
Akousti-Liner 1.5" (38mm)	A		0.14	0.46	0.98	1.08	1.08	1.07	0.90
Akousti-Liner 2" (51mm)	A		0.23	0.80	1.16	1.13	1.09	1.09	1.05
Akousti-Liner 5/8" (18mm)	F25		0.18	0.39	0.47	0.72	0.89	0.79	0.60
Akousti-Liner 1" (25mm)	F25		0.30	0.51	0.77	0.94	1.03	0.82	0.80
Akousti-Liner 1.5" (38mm)	F25		0.38	0.61	1.00	1.10	1.09	0.85	0.95
Akousti-Liner 2" (51mm)	F25		0.48	0.83	1.16	1.16	1.11	0.87	1.05

[Acousti Cotton](#)

PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
3#	0.5" (15mm)		0.01	0.06	0.22	0.54	0.81	1.00	0.40
3#	1" (15mm)		0.04	0.25	0.75	0.98	1.03	1.08	0.75
4.5#	1" (15mm)		0.04	0.33	0.86	1.01	1.04	1.02	0.80
6#	1" (15mm)		0.06	0.38	0.88	0.99	1.00	1.04	0.80
4.5#	2" (15mm)		0.24	1.04	1.00	0.96	0.97	1.02	1.00

Bonded Logic Inc's UltraTouch Cotton

PRODUCT	THICKNESS	DENSITY	MOUNTING	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
R-13	3.5" (mm)		A	0.95	1.30	1.19	1.08	1.02	1.00	1.15
R-19	5.5" (mm)		A	0.97	1.37	1.23	1.05	1.00	1.01	1.15

Acoustical Surfaces Echo Eliminator Acoustical Tests (Cotton)

PRODUCT	THICKNESS	DENSITY	MOUNTING	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
Echo Eliminator (Cotton)	1"	3pcf	A	0.08	0.31	0.79	1.01	1.00	0.99	0.80
Echo Eliminator (Cotton)	2"	3pcf	A	0.35	0.94	1.32	1.22	1.06	1.03	1.15
Echo Eliminator (Cotton)	1"	6pcf	A	0.07	0.30	0.86	1.10	1.05	1.03	0.85
Bass Buster (Cotton)	4"	1.2pcf		0.97	1.37	1.23	1.05	1.00	1.01	1.15

Second Nature's Thermafleece (Sheep)

PRODUCT	THICKNESS	DENSITY	MOUNTING	100HZ	125HZ	160HZ	200HZ	250HZ	315HZ	400HZ	500HZ	630HZ	800HZ	1000HZ	1250HZ	1600HZ
Thermafleece	100mm		ISO 354:1985	0.34	0.44	0.63	0.76	0.87	0.95	0.99	1.00	1.01	0.95	0.93	0.94	0.94

Sonex Acoustical Ceilings

PRODUCT	THICKNESS	DENSITY	MOUNTING	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
Basic 1	1 5/8"		E 16"	0.50	0.60	0.62	0.76	0.79	0.79	0.70
Basic 2	2 3/8"		E 16"	0.48	0.66	1.06	1.14	1.15	1.11	1.00

[SEALITE](#) is a basic open-cell, spray-in-place soft foam insulation. It can be compared to [Icynene](#)®, [Sealection](#)™ 500 and other light-density, open-cell products.

Icynene Spray Open Cell Foam Insulation

PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
Icynene	4" (100mm)	0.5lb	0.11	0.43	0.89	0.72	0.71	0.67	0.70

Armstrong Ceiling Tile

[Several Armstrong ceiling coefficients](#)

PRODUCT	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
Fine Fissured High NRC	0.36	0.41	0.65	0.84	0.90	0.88	0.70
Cirrus Beveled Tile	0.38	0.38	0.51	0.77	0.89	0.95	0.85

RPG

PRODUCT	THICKNESS	DENSITY	80HZ	100HZ	125HZ	160HZ	200HZ	250HZ	315HZ	400HZ	500HZ	630HZ	800HZ	1000HZ	1250HZ	1600HZ
BASWA@phon	1.57" (40mm)			0.20	0.33	0.39	0.43	0.54	0.68	0.84	0.82	0.85	0.83	0.79	0.73	0.72
BASWA@phon	2.68" (68mm)			0.28	0.57	0.55	0.60	0.82	0.79	0.81	0.77	0.71	0.65	0.65	0.66	0.66

Modex Corner			1.12	0.64	0.54	0.56	0.43	0.36	0.45	0.31	0.21	0.20	0.24	0.26	0.26	0.28
------------------------------	--	--	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Tasman Insulation New Zealand

PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
Noise Control Block	100mm)		0.50	0.85	1.10	1.10	1.10	1.10	1.04
Noise Control Blanket	50mm)		0.43	0.97	1.05	1.02	1.01	1.03	1.00
Noise Control Blanket	75mm)		0.45	0.84	1.17	1.06	1.06	1.03	1.05
Noise Control Panel	50mm)		0.38	0.73	0.99	0.99	0.99	0.99	0.93
Board (fiberboard)	50mm)		0.18	0.10	0.26	0.59	0.72	0.81	0.42

Termo (Skofja Loka in Slovenia)

PRODUCT	THICKNESS	DENSITY	125HZ	250HZ	500HZ	1000HZ	2000HZ	4000HZ	NRC
TERVOL DP-3	80mm	30kg/m3	0.30	0.85	1.00	1.00	1.00	1.00	
TERVOL DP-5	40mm	50kg/m3	0.15	0.45	0.80	0.95	1.00	1.00	
TERVOL DP-8	75mm	80kg/m3	0.40	0.90	1.00	1.00	1.00	1.00	

There are several types of absorbers

- thin porous most of wall
- thick porous entire ceiling full
- corner porous panel (corner chunk)
- corner porous full (superchunk)
- parallel out from surface porous (e.g. 4" out, acoustic ceiling tiles)
- covered porous (FRK, leather couch)
- constant slat/slot helmholtz (traditional formuals)
- variable slat/slot helmholtz (John Sayers example)
- port helmholtz (e.g. helmholtz riser)
- constant perforated/microperforated helmholtz
- variable perforated helmholtz
- membrane, panel, diaphramatic (cupboards, bad risers)
- polycylindrical {membrane,slat,port,perforated} absorbers
- active noise suppression

porous includes

- 1) fiberglass (fluffy pink, rigid)
- 2) rockwool (semi rigid SafeNSound, rigid)
- 3) cotton
- 4) polyester batting (WalMart fabric department ish)
- 5) foam (often available in shapes like wedges)

Any absorber may be placed in a checkerboard or separated baffles.

In all cases if you have less than 4" you use rigid, if you have 8" or more you use fluffy, unless you need rigid for structure.

Porous absorbers are always broadband.

A porous soffit can be made 12"x12"x20' by cutting rigid 703 into 12"x12"x2" blocks, and then mounting them up there.

A porous soffit can be made from an exoskeleton frame and filled with fluffy pink.

A porous soffit can be made out of 2" rigid on the bottom and side, but the interior hollow.

Membrane/slat/perforated are narrow band absorbers.

Membrane traps are usually done by trying to tune them to a frequency. So the short side is made out of something rigid like 1.5" of MDF, and the membrane bottom is made out of 1/4" plywood, or two layers of vineer with green glue in between. Fluffy pink Insulation is placed in the cavity in such a way as so that it doesn't touch the membrane.

Slat and perforated helmoltz absorbers are also done by trying to tune to a specific frequency, or a series of lowish frequencies. If the slat or hole density is constant, then it's tuned to one frequency. If the slat or hole density changes over the face of the absorber, then it's tuned to multiple frequencies.

The correct slat formula is found here: <http://forum.studiotips.com/viewtopic.php?t=94>

Other than the wrong forumla, this page is a great introduction to the concepts:

<http://www.mhsoft.nl/Helmholtzabsorber.asp>

These are slat helmholtz:



from http://www.saecollege.de/reference_material/pages/Low%20Mid%20Frequencies.htm
<http://www.johnlsayers.com/HR/index1.htm>

For membrane we have this thread

<http://www.avsforum.com/avs-vb/showthread.php?t=568891>

[Auralex Sound Absorbtion Products](#)

[Auralex absorbtion coefficients](#)

[Auralex absorbtion coefficients All Products Master Table 100hz to 6k-hz](#)

[Primacoustic Studio Acoustics 2" and 3" foam absorbtion coefficients](#)

[Modular Acoustics hinged absorber panels](#)

[Auralex absorbtion coefficients](#)

[Couches, effect on low frequency response](#)

[Egg Cartons, Riverbank Acoustical Laboratories tests](#)

[Eric Desart thread about Owens Corning 701, 703, 705, with 1/4 wavelength absorbtion expectation graph](#)

[BBC A Modular Wideband Sound Absorber 7" of RW2, abs coef 50hz to 8khz 1991-11.pdf](#)

[Eric Desart's Playing With Baffles](#)

[Comparison of, and sabins of: DIY SuperChunk, DIY Corner Panels vs MegaLENRD, MiniTraps](#)

[Jon Risch's Absorbers](#)

[Jon Risch's Absorber Review #1](#)

[Jon Risch's Absorber Review #2](#)

[Bill's Audio Cave](#)

[Todd E. Jones's Ceiling Diffusor, Ceiling and Wall Traps, and Corner Traps.\(scroll down\)](#)

[Chris Campbell's Acoustic Baffle / Absorbent Panel](#)

[cylindrical bass absorber](#)

[Absorber panels example \(Finnish\)](#)

[DIY Rigid Foam Skyline \(Finnish\)](#)

[Keith Kidder's Absorbers](#)

[Theater L'Idiot](#)

[Johns-Manville Linacoustic being applied in Kirk's Theater Uptown Paridiso](#)

[Andrew McMaster's Guide To Building Ceiling Clouds](#)

[Digipenguin's fiberglass traps using hand compressed R25 batts in a frame with wire mesh](#)

[Doug Plos DIY Tube Trap Project](#)

[Jon Gale and Chris's DIY Tube Traps](#)

[Zaphod first DIY Absorber panel: cheap, easy, light](#)

[jasplat88's 12"x12"x36" square absorber with corner molding for supports](#)

[Sechelt davey_fil's 1x3 pine around GoM covered Roxul absorbers](#)

[Long Sought for Sound AcousticTreatments DIY Absorbers and Helmholtz corner](#)

[BBC 1992-10 Design of an absorber for very low frequencies](#)

[Ruġgar's Construction of Absorption Panels on French Doors](#)

[GPowers Fabric Frames website](#)

[Fabri Lok panels - some great mounting ideas](#)

[Decoustics Assorted Custom Panels, including a 250hz 2" membrane trap](#)

[Steven P. Helm's Absorbers. Made with metal corner bead.](#)

[David French's absorption cloud design with aluminum guttering material](#)

[Dave Portocarrero Absorbers](#)

[Harder Corner Trap](#)

[Mark Edmonds walls](#)

[Martin's Absorbers](#)

[Bob's Ultra Magnificent 12" thick absorbers](#)

[Vshine's Wall Absorbers](#)

[Acoustics First Sound Channels-2 acoustical fabric absorbers](#)

[GetRidOfNoise absorber - nice 45 degree back present wrapping technique with GoM](#)

Foam:

Open Cell

- PolyEther
- Polyester
- Polyurethane ether
- Polyurethane ester
- Melamine
- Reticulated polyurethane (stranded - air filter little resistance)

Closed Cell

- PVC
- Neoprene
- Polyethylene
- Polyurethane
- Silicones

For a list of closed cell boards and their descriptions, please see [Brian Dayton's post at StudioTips re polystyrene, styrene, polyethylene, polypropylene, including their chemical formula](#)

Cutting

drywall T-square to get a straight square edge and a utility knife

electric carving knife

table saw or a skillsaw will cut the stuff and give you nice clean edges. You can even clamp a straight-edge to the 6 lb. (705)

Depending on the throat depth BAND SAWS work GREAT! They are what a local company uses for all there fiberglass cutting chores

[Cutting techniques quoted from here.](#)

Mike says "I have tried a 12" hacksaw, bread knife, stanley knife with saw blade, tenon saw, jigsaw and regular stanley knife and none of them are as effective as the [jet saw](#)." [quote from here](#)

Cover Material

Burlap and polyester batting

polyester double-knit, often used for speaker grilles. (Harmon Whitepapers Loudspeakers&RoomsPt3.pdf)

[Guilford of Maine: Acoustically Transparent Fire Resistant Fabric](#)

[Fabricmate - a good place go buy GoM at \\$12.50 per yard](#)

[One 2" layer of 703, and a cover 2" layer of SelectSound Black \(i.e. buy it covered!\)](#)

Tube Traps

Tube traps (1/4 wave silencers) have the advantage that they are narrow band devices, and are easy to make and predict.

Eric writes "I think a better approach is the corner absorption to start with as found in the FAQ. Use those 1/4 wave silencers if needed to solve specific problems."

[Giant Toilet Paper Tubes](#)

[Studiosips review of the Giant Toilet Paper Tubes](#)

[Eric talking about tube traps](#)

[Bert's suggestions for Tube Length vs Diameter correction formula](#)

[ASC Tube Traps.](#)

<http://www.teresaudio.com/haven/home.html>

<http://www.teresaudio.com/haven/traps/traps.html>

http://dougploss.com/tubetraps_diy.htm

<http://www.geocities.com/jonrisch/basstrap.htm>

<http://www.audioasylum.com/audio/tweaks/messages/77809.html>

<http://www.geocities.com/jonrisch/a1.htm>

Helmholtz absorber examples.

I believe that your absorption may vary due to different construction materials, techniques, construction errors, and who knows what else.

Absorber coefficients: 0.90, 0.54, 0.30, 0.16, 0.12, 0.10

This is made by making a panel about 1.75" thick with the visible side being 3/16" masonite perforated so that about 0.1 percent of its area is holes. e.g. holes of about 3/16" diameter spaced 6 inches apart on both vertical and horizontal centers. Fill the 1.75" behind it with 2" of 703.

Do not have an air gap.

(H2BASBRSFSW12TD3: 41 aka contracarpet)

Here's another variation: 1.00, 0.68, 0.39, 0.17, 0.13, 0.10

In this case the thing is 8" deep. The holes in the masonite are spaced 2 and 9/16" inches on centers (i.e. more holes). And there is 4" of 703 at the back -- so there's a 4" air space between the 703 and the masonite.

(H2BASBRSFSW12TD3: pg 86, 216 aka low freq. absorbers 5 - 4'x5')

And another: 0.98, 0.88, 0.52, 0.21, 0.16, 0.14

In this case the thing is 6" deep. The holes in the masonite are spaced 1 and 9/16" inches on centers. And there is 2" of 703 at the front -- so there's a 4" air space between the 703 and the wall.

(H2BASBRSFSW12TD3:pg 145 aka LP - Low Peak Wall Unit)

And another: 1.00, 0.83, 0.44, 0.29, 0.24, 0.20

In this case the thing is 8" deep. The holes in the masonite are spaced 3 inches on centers. And there is 4" of 703 at the front -- so there's a 4" air space between the 703 and the wall.

(H2BASBRSFSW12TD3:pg 195 aka LP - Low Peak)

membrane absorber with a 1/8" thick panel over a frame made of 2x3s. If the panel weighs .375 pounds per square foot and the depth is 2.5", you should end up with a center frequency of 175 Hz. Not putting insulation inside will make it more narrowband than if you did use insulation. (jazzman_in_pa)

[Membrane at CustomAudioDesigns](#)

Absorption coefficients for a perforated helmholtz absorber with 1", 2", or 4" of fiberglass behind it can be found at [RPG Bad Panel](#)

A slat absorber could be made: 0.98, 0.72, 0.33, 0.21, 0.16, 0.14

Again this is 8" deep, but this time there is 2" of 703 against the front instead of against the wall, leaving a 6" air gap between the 703 and the wall. Instead of masonite with holes, you put up 3/4" thick x 3" wide boards, with alternating 1/8" and 1/4" slits (spacing) between them to let the air through.

(H2BASBRSFSW12TD3: pg 123 aka LF slat absorber)

Here's a polycylindrical (12" deep in the center, 8' wide) absorber coefficient: 0.50, 0.35, 0.22, 0.14, 0.11, 0.10

The poly is made with 1/4" plywood bent over a 1" wood shaping frame with 2" of 703 at the back (air space between the 703 and the plywood).

(H2BASBRSFSW12TD3:pg 72 aka cylindrical element south wall)

(H2BASBRSFSW12TD3: [How to Build A Small Budget Recording Studio From Scratch : With 12 Tested Designs by Michael Shea](#)

If you want to know more about how to build these (diagrams and additional text) or to know how to combine and choose these with other things in your room, then I'd suggest that you buy a copy!)

Note: [In this thread](#) Eric Desart says, "Be damned careful with traps going that low in frequency [e.g. 20hz, 30hz]. Not only the resonance frequency is important but also the damping. Such devices very easily can cause secondary reverb curves, radiating sound back into the room at a minus 20 to minus 30 dB level. ... The resonance frequency itself is only ONE SINGLE parameter. I once tried to correct a 31 Hz problem with a panel resonator (horizontal). I could tune the panel resonator to the EXACT frequency. But I couldn't get the internal damping high enough. And when I got it high enough it lost its efficiency. So even with the correct resonance frequency I just got other problems instead. So I stopped and demounted the whole thing (which had cost already time, energy and money)."

Assistance provided by but not mentioned above (alphabetical order)

- Andre Vare (avare)
- Dan Nelson
- Eric Desart
- Paul Woodlock
- Ben Seigel - css (font/colour/case) recommendations