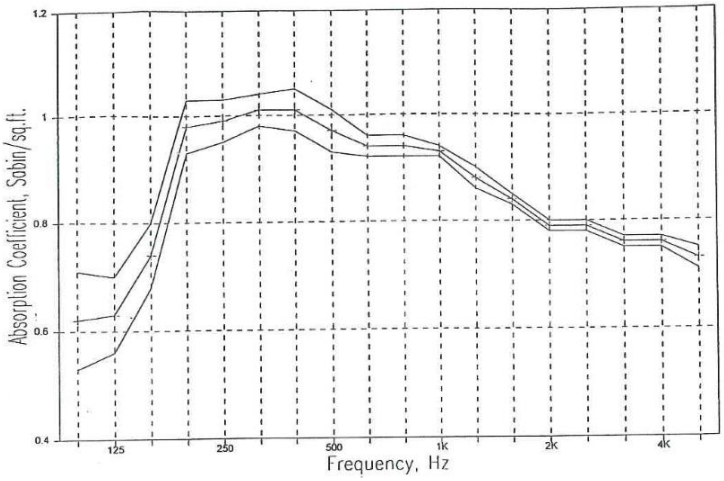
Aerix Industries™
Advanced Engineered Foam Solutions

T E C H N I C A L B U L L E T I N

Bulletin # 16-0909 Sound Absorption and Cellular Concrete

Acoustical values are measured in NRC (Noise Reduction Class) and STC (Sound Transmission Class). The Sound Absorption Coefficient indicates how much of the sound is absorbed in the actual material. Independent studies have shown that a 28pcf (448kg/m3) cellular concrete ranges between 0.5 – 1.0 in the NRC scale under various sound frequencies.



Frequency (Hz)	Absorption (Sabin)		Deviation	Coefficient (Sabin/ft²)		Deviation
	44.7	±	6.4	0.62	±	0.09
125	45.4	±	5.2	0.63	±	0.07
	53.1	±	4.2	0.74	±	0.06
	70.8	±	3.6	0.98	±	0.05
250	71.5	±	3	0.99	±	0.04
	72.8	±	2.1	1.01	±	0.03
	72.5	±	2.7	1.01	±	0.04
500	69.7	±	2.6	0.97	±	0.04
	67.6	±	1.7	0.94	±	0.02
	67.4	±	1.2	0.94	±	0.02
1K	67	±	1.1	0.93	±	0.01
	63.6	±	1.4	0.88	±	0.02
	60.2	±	1	0.84	±	0.01
2K	57.1	±	0.9	0.79	±	0.01
	56.7	±	1	0.79	±	0.01
	55	±	1	0.76	±	0.01
4K	55	±	0.9	0.76	±	0.01
	52.5	±	1.7	0.73	±	0.02
Noise Reduction Coefficient				0.9		

Sound Absorption Coefficient (SAB/ft²) vs. Frequency (Hz)
On Mearlcrete Low Density Cellular Concrete Panel**

Typical sound absorption coefficients for different materials:

Poured Concrete	0.01-0.03	Hardwood Floors	0.03
Fiberboard	0.3-0.4	Polystyrene Rigid Insulation	0.15
Plaster Walls	0.01-0.03		

Insulation values for cellular concrete are discussed in Bulletin # 16-2203. For more information, please contact Aerix Industries.

** Cedar Knolls Acoustical Labs Test Report # 7341.0101

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