

Noise-Foil Sound Absorption Panel Acoustic Performances

**TABLE 1 - CONTINUOUS, WALL-MOUNTED
INSTALLATION NOISE FOIL TYPES I, II, III & V**

Panel Type & Fill Protection Options	SOUND ABSORPTION COEFFICIENTS						
	1/3 Octave Band Center Frequency, Hz						
	125	250	500	1K	2K	4K	NRC
Types I, II, III, all 4" (102 mm) Thick							
None, -N	0.97	1.39	1.34	1.29	1.19	1.01	1.30
Polyethylene, -P	0.86	0.89	0.93	0.89	0.84	0.77	0.90
Polyethylene with Spacer, -PS	0.57	0.60	1.01	1.06	0.99	0.86	0.90
Type V, 2-1/2" (64 mm) Thick							
None, -N	0.24	0.95	1.13	0.99	0.94	0.86	1.00
Types I, II, III, all 2" (51 mm) Thick							
None, -N	0.35	0.65	1.20	1.21	1.07	0.92	1.00
Polyethylene, -P	0.41	0.47	0.64	0.79	0.85	0.72	0.70
Polyethylene with Spacer, -PS	0.39	0.48	0.71	1.01	0.93	0.77	0.80

**TABLE 2 - INTERMITTENT, WALL-MOUNTED INSTALLATION
NOISE FOIL TYPES I, II, III & IV**

Panel Type & Fill Protection Options	Spacing in (mm)	TOTAL ABSORPTION, SABINS/ARRAY					
		1/3 Octave Band Center Frequency, Hz					
		125	250	500	1K	2K	4K
Types I, II, III, IV, all 4" (102 mm) thick Array of 6 panels 14' x 120' (355 x 3048 mm) Total area 70ft² (6.5 m²)							
None, -N	3 (76)	66	111	110	98	95	84
	14 (358)	81	116	140	117	112	100
Polyethylene, -P	3 (76)	67	74	88	70	66	75
	14 (356)	75	71	91	92	77	67
Polyethylene with Spacer, -PS	3 (76)	47	56	94	85	85	58
	14 (356)	63	52	102	105	94	67
Types I, II, III, IV, all 2" (51 mm) thick Array of 5 Panels 18' x 120' (457 x 3048 mm) Total area 75 ft² (7 m²)							
None, -N	3 (76)	24	48	98	98	68	75
	18 (457)	25	58	112	114	107	82
Polyethylene, -P	3 (76)	25	42	54	64	60	65
	18 (457)	32	32	50	61	66	63
Polyethylene with Spacer, -PS	3 (76)	37	38	54	80	72	65
	18 (457)	36	32	58	86	82	63

**NOTE: Coefficients greater than 1.0 arise from diffraction effects associated with the limited sample size (ASTM C-423, 72 sq ft - 6.69 sq m). For most applications a maximum recommended coefficient of 0.95 should be used for noise control calculations.*

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**TABLE 3 - CEILING HUNG INSTALLATION
NOISE FOIL TYPE III**

Panel Type & Fill Protection Options	Spacing in (mm)	TOTAL ABSORPTION, SABIN/PANEL 1/3 Octave Band Center Frequency, Hz					
		125	250	500	1K	2K	4K
Type III, all 2" (51 mm) thick 42in x 66in. (1067 x 1678mm)							
None, -N	14 (366)	6	10	12	10	12	9
	32 (813)	6	11	16	16	20	14
	42 (813)	6	12	18	18	25	17
	63 (1600)	6	13	23	25	31	19
Polyethylene, -P	14 (356)	6	12	12	12	12	7
	32 (813)	6	13	16	18	20	12
	42 (1067)	6	15	18	20	25	14
	63 (1000)	5	16	22	30	32	17
Polyethylene with Spacer, -PS	14 (356)	5	12	11	12	13	8
	32 (813)	5	14	15	19	21	12
	42 (1067)	5	16	17	22	27	15
	63 (1000)	5	16	22	30	32	17
Type III, all 4" (102 mm) thick 38 in. x 62 in. (965 x 1575mm)							
None, -N	13 (330)	5	11	13	12	13	8
	29 (737)	5	12	18	19	21	12
	38 (965)	5	14	21	21	27	15
	57 (1448)	5	15	26	29	32	17
Polyethylene, -P	13 (330)	7	10	12	11	11	7
	29 (737)	7	11	16	17	18	11
	38 (965)	7	13	19	19	23	14
	57 (1448)	7	13	2	26	27	16
Polyethylene with Spacer, -PS	13 (330)	6	10	13	12	11	6
	29 (737)	6	12	18	19	19	11
	38 (965)	6	13	21	22	24	13
	57 (1448)	6	14	26	30	28	16