

Acoustical Performance of Glass and Wall Constructions						
	Overall Thickness	Inside	Construction Space	Outside	STC Value	ISO RW ³
Single Laminated Glass¹	1/4" (7.24 mm)	1/8"	0.030 P.V.B.	1/8"	35	35
	3/8" (9.53 mm)	1/4"	0.030 P.V.B.	1/8"	36	36
	3/8" (10.5 mm)	1/4"	0.060 P.V.B.	1/8"	37	37
	1/2" (12.1 mm)	1/4"	0.030 P.V.B.	1/4"	38	38
	1/2" (12.9 mm)	1/4"	0.060 P.V.B.	1/4"	39	39
	5/8" (16.2 mm)	3/8"	0.030 P.V.B.	1/4"	40	40
	3/4" (19.9 mm)	1/2"	0.060 P.V.B.	1/4"	41	41
Laminated-Insulating Glass²	1" (26.1 mm)	1/4" laminate	1/2", Air	1/4"	39	39
	15/16" (24.6 mm)	1/4" laminate	1/2", Air	3/16"	39	39
	1-1/8" (29.3 mm)	3/8" laminate	1/2", Air	1/4"	40	40
	1-7/16" (37.3 mm)	1/4" laminate	1", Air	3/16"	42	42
	2-7/16" (62.7 mm)	1/4" laminate	2", Air	3/16"	45	45
	4-1/2" (113.5 mm)	1/4" laminate	4", Air	3/16"	48	48
	4-5/8" (119.1 mm)	1/2" laminate	4", Air	3/16"	49	49
	1" (27.9 mm)	1/4" laminate	1/2", Air	1/4" laminate	42	42
4-3/4" (120.7 mm)	1/2" laminate	4", Air	1/4" laminate	51	51	
Airspaced Glass¹	1/2" (14.5 mm)	1/8"	1/4", Air	1/8"	28	30 ⁴
	1" (27.9 mm)	1/4"	1/2", Air	1/4"	35	35
	1 1/2" (40.6 mm)	1/4"	1", Air	1/4"	37	37
Monolithic Glass¹	1/4" (5.59 mm)	1/4"	-	-	31	32 ⁵
	1/2" (12.4 mm)	1/2"	-	-	36	37 ⁶
Walls¹	1/2" Gypsum board (both sides) screwed to 3-5/8" metal studs				36	36
	4" Face brick, mortared together				45	45
	6" Lightweight concrete block, two coats of paint each side				46	46
	4" Hollow lightweight masonry block, plastered on both side				48	48
	8" Dense concrete block wall, two coats of paint each side				52	52
	Double layer of gypsum wall board, both sides, 3-5/8" metal studs, 3" sound attenuation blanket				54	54
¹ Tested under ASTM E90, panels caulked in place with wooden stops and glazing putty. ² Tested under ASTM E90, laminated outside pane consisted of either 1/8"-0.030" P.V.B. -1/8" (total 1/4" thick), 1/4"-0.030" P.V.B. -1/8" (total 3/8" thick), 1/4"-0.030" P.V.B. -1/4" (total 1/2" thick), 1/4"-0.030" P.V.B. -1/2" (total 3/4" thick), panels caulked in place in single frame with wooden stops and glazing putty. Units with less than 1" airspace were factory sealed. All other units were constructed in place. ³ Weighted Sound Reduction Index (Rw) in accordance with ISO 717/3 ⁴ Deviates below Rw 30 contour by 10 dB at 400 Hz ⁵ Deviates below Rw 32 contour by 9 dB at 2,500Hz ⁶ Deviates below Rw 37 contour by 9 dB at 1,200Hz						