

STC OVERVIEW ■

KI Architectural Walls

January 2015

What is an STC rating?

STC stands for Sound Transmission Class and represents a method of measuring sound loss through the wall (or barrier).

What does the number represent?

The ASTM E-90 test is used to determine the STC values (dc), which are based on the number of decibels of transmitted sound reduced by the wall.

STC ratings and privacy:

25	Normal speech easily understood	
30	Normal speech audible, but unintelligible	
35	Loud speech audible and understandable	
38	Normal speech inaudible...loud speech audible, but not understandable	
40	Loud speech audible, but unintelligible	LIGHTLINE: 36 to 39 STC
45	Loud speech barely audible	
50	Shouting barely audible	GENIUS: 44 or 48 STC
55	Shouting not audible	



What is the STC rating of KI's Genius® solid wall?

44 STC rating:	Testing consisted of 3 sections of standard Genius solid panels constructed of aluminum framing with 1/2" monolithic 22 gauge steel face tiles on both sides, exposed aluminum base trim, recessed steel ceiling channel with closed cell gasket, flush panel connectors, all voids filled with formaldehyde-free insulation (ceiling, panel, and base cavity) and no perimeter enhancements.
48 STC rating:	Same test wall construction as 44 STC, except with flush ceiling channel.

How does KI wall STC compare with other construction methods?

STC Rating	Method
36-42	4" drywall with one sheet of 5/8" gypsum on each side
37-41	Many competitors (solid panel)
45	4" face brick, mortared together
46	6" lightweight concrete block, two coats of paint each side
44 or 48	KI Genius wall (solid panel)
52	8" dense concrete block wall, two coats of paint each side
54	Double layer gypsum wall board, both sides, 3-5/8" metal studs, sound attenuation blanket

Listen to an STC demonstration via the following link: www.ki.com/products/genius-movable-wall/gw_stc/

What is the STC rating of Lightline glass wall?

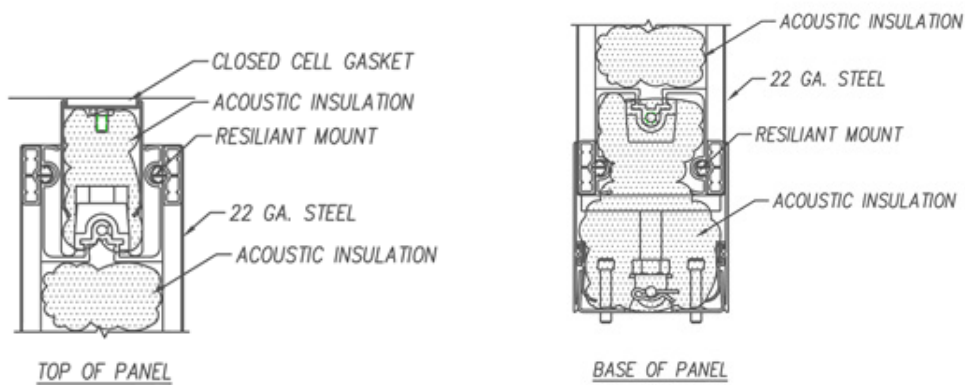
STC ratings of Lightline are largely driven by the glass itself. See the table on the next page for average glass ratings (will vary slightly by vendor).

STC OVERVIEW continued

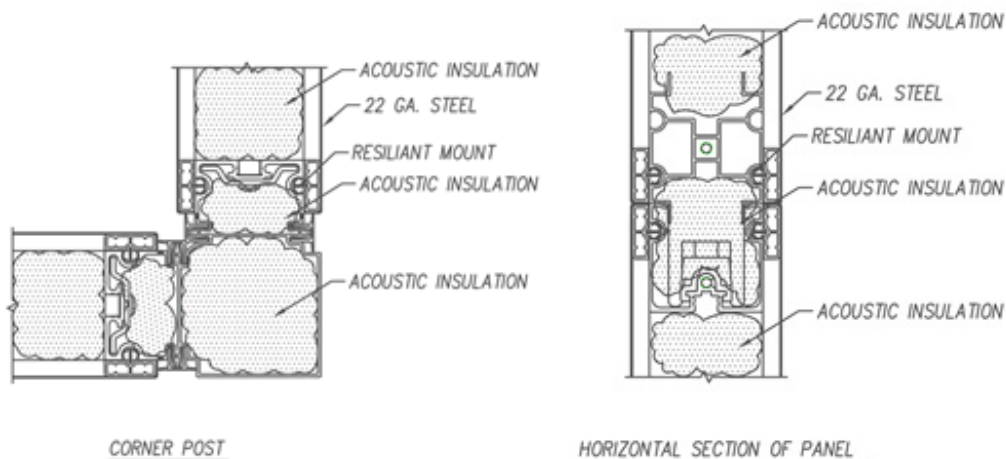
Single pane glass wall STC values by glass type and thickness:

Riverbank	Nominal Thickness - (Configuration)	STC	OITC2	Rw	U-Value3	U-Value3	
Acoustical					Summer	Winter	
Laboratories							
TEST NO. /							
	Monolithic						
TL 85-169	1/4"	31	29	32	1.01	1.08	
TL 85-198	1/2"	36	33	37	0.97	1.03	(Lightline)
	Laminated						
TL 85-218	1/4" - (Lami - 0.030" - Lami)	35	31	35	1	1.06	
TL 85-170	1/4" - (1/8" - 0.030" - 1/8")	35	31	35	0.99	1.05	
TL 85-224	1/4" - (1/8" - 0.060" - 1/8")	35	32	35	0.97	1.03	
TL 85-234	1/4" - (1/8" - 0.045" - 1/8")	35	31	35	0.98	1.04	
TL 85-200	3/8" - (3/16" - 0.030" - 3/16")	36	33	36	0.97	1.03	
TL 85-229	3/8" - (1/4" - 0.030" - 1/8")	36	33	36	0.97	1.03	
TL 85-223	3/8" - (1/4" - 0.060" - 1/8")	37	33	37	0.95	1	
TL 85-225	1/2" - (1/4" - 0.030" - 1/4")	38	34	38	0.95	1.01	(Lightline)
TL 85-232	1/2" - (1/4" - 0.045" - 1/4")	38	34	38	0.94	0.99	(Lightline)
TL 85-228	1/2" - (1/4" - 0.060" - 1/4")	39	34	39	0.93	0.98	(Lightline)

Standard details for Genius wall:

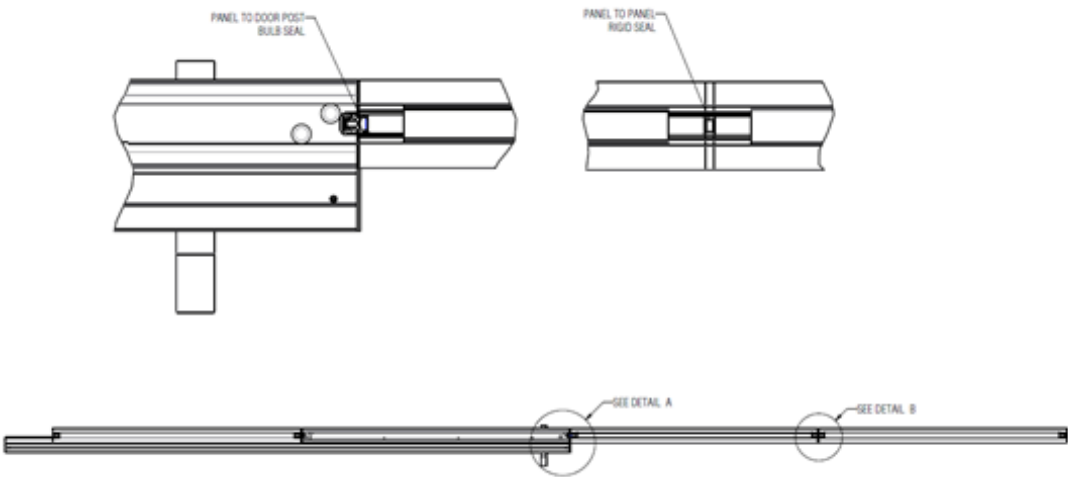


Enhanced details for Genius wall:

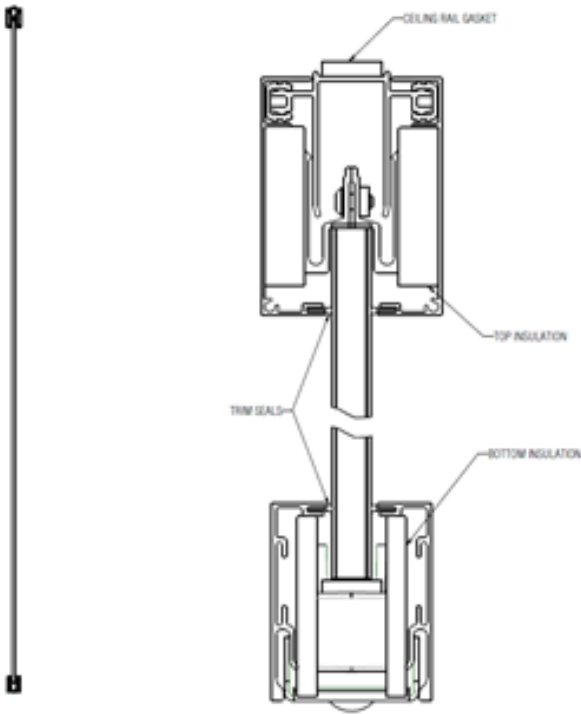


STC OVERVIEW continued

Standard details for Lightline wall:



Enhanced details for Lightline wall:



STC OVERVIEW continued

Enhanced details for Lightline wall (continued):

