

Riverbank Acoustical Laboratories (RAL)<sup>TM</sup> / An Alion Science Technical Center  
 Laboratory Measurement of Airborne Sound Transmission Loss  
 of Building Partitions ASTM E 90-04/NVLAP 08/P06

TEST NUMBER: TL07-120 TEST DATE: MAY 08, 2007

CLIENT: Quiet Solution, LLC  
 DESIGNATION: One layer of 525 on both outer walls\ Area Separation Wall per UL design U347 (1" Fire-shield Shaft liner material. Double-wood studs 16" oc R-13 both sides)

DIMENSIONS: 168" wide x 108" high x 11.75" thick  
 AREA: 126.0 ft<sup>2</sup>  
 WEIGHT: 2090.75 lbs AREA WEIGHT: 16.59 lbs/ft<sup>2</sup>  
 SPECIMEN DETAILS:

SOURCE ROOM: Room 2 Volume = 6297.6 ft<sup>3</sup> Area = 2066.2 ft<sup>2</sup>  
 RECEIVE ROOM: Room 1 Volume = 6254.5 ft<sup>3</sup> Area = 2042 ft<sup>2</sup>  
 FILE NAME: TL07\_120\_070508\_A.doc

FREQ. (Hz)	T.L. (dB)	UNC. (dB) 95%CL	DEF. (dB) <CONT	FREQ. (Hz)	T.L. (dB)	UNC. (dB) 95%CL	DEF. (dB) <CONT
100	<b>42</b>	0.90		800	<b>73</b>	0.15	
125	<b>49</b>	0.67	5	1k	<b>75</b>	0.14	
160	<b>50</b>	0.68	7	1.25k	<b>77</b>	0.11	
200	<b>54</b>	0.51	6	1.6k	<b>79</b>	0.12	
250	<b>59</b>	0.46	4	2k	<b>81</b>	0.16	
315	<b>63</b>	0.34	3	2.5k	<b>87</b>	0.10	
400	<b>66</b>	0.32	3	3.15k	<b>91</b>	0.24	
500	<b>68</b>	0.24	2	4k	<b>92</b>	0.99	
630	<b>71</b>	0.18		5k	<b>88</b>	0.43	

**Sound Transmission Class (STC) = 70**

Total Deficiencies = 30

Extended Frequency Data

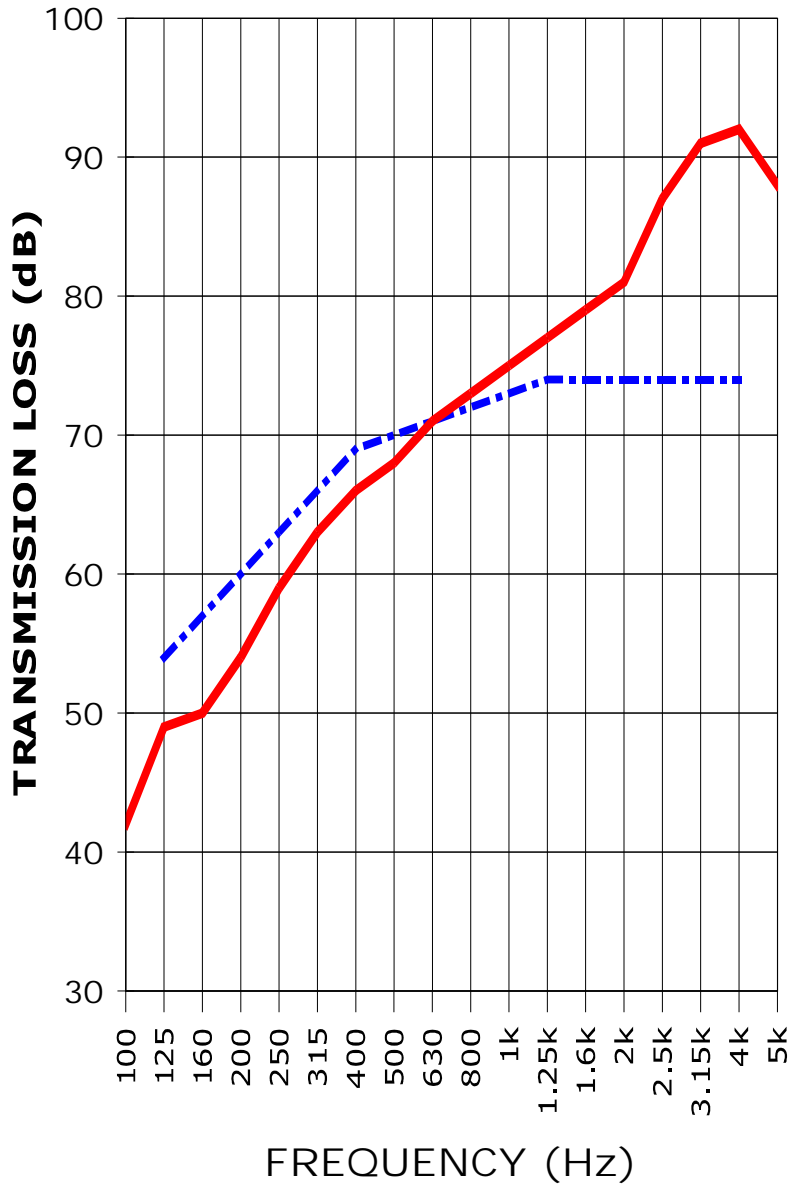
FREQ.	T.L.	UNC.	DEF.	FREQ.	T.L.	UNC.	DEF.
40	<b>25</b>	0.57		6.3k	<b>87</b>	0.33	
50	<b>24</b>	1.03		8k	<b>83</b>	0.23	
63	<b>26</b>	0.75		10k	<b>79</b>	0.38	
80	<b>38</b>	0.55					

R: 69  
 OITC: 54

Test Conducted by: Marc Sciaky

This single report page and accompanying graph contain the instantaneous raw data as provided to the client after testing of the specimen. This data, although accurate, is incomplete without the full specimen description, mounting details and signature pages. The full report referenced by the RAL test number above should be consulted for further information regarding these results.

SOUND TRANSMISSION REPORT  
RAL - TL07-120



STC = 70



TRANSMISSION LOSS  
SOUND TRANSMISSION LOSS CONTOUR

TEST NUMBER: TL07-120 TEST DATE: MAY 08, 2007

ASTM E90 RAW DATA ANALYSIS TLALCS

FREQ	FILL	+	AMB	*	SOR	-REC	=NR	+10 Log (Sc/A)	TLc	TLs	Abs	Unc w/95 % C.L.
40	NA		24.9		96.9	72.1	24.8	0.5	25.2	<b>25.0</b>	113.6	0.57
50			28.4		98.6	76.9	21.7	1.9	23.6	<b>24.0</b>	81.7	1.03
63			30.7		101.5	75.8	25.7	0.4	26.2	<b>26.0</b>	114.2	0.75
80			34.0		100.4	63.5	36.9	0.9	37.8	<b>38.0</b>	102.2	0.55
100			25.0		103.1	61.8	41.3	0.9	42.2	<b>42.0</b>	101.8	0.90
125			29.5		101.4	54.4	47.0	1.6	48.6	<b>49.0</b>	87.2	0.67
160			22.3		106.3	59.2	47.1	2.7	49.8	<b>50.0</b>	68.0	0.68
200			19.9		105.1	54.3	50.9	3.5	54.4	<b>54.0</b>	56.2	0.51
250			14.0		101.1	45.9	55.1	3.5	58.6	<b>59.0</b>	56.7	0.46
315			20.2		104.4	44.4	60.0	3.5	63.5	<b>63.0</b>	56.5	0.34
400			13.3		104.7	42.4	62.3	3.4	65.7	<b>66.0</b>	57.3	0.32
500			15.2		102.7	37.6	65.1	3.4	68.5	<b>68.0</b>	57.8	0.24
630			12.7		103.9	36.0	67.9	3.5	71.4	<b>71.0</b>	56.0	0.18
800			13.4		101.8	32.5	69.3	3.6	72.9	<b>73.0</b>	54.9	0.15
1k			16.9		100.3	28.1	72.2	3.3	75.5	<b>75.0</b>	59.4	0.14
1.25k			11.6		102.1	27.5	74.6	2.7	77.3	<b>77.0</b>	67.7	0.11
1.6k			9.0		102.0	25.8	76.3	2.5	78.7	<b>79.0</b>	71.4	0.12
2k			9.4		101.0	22.0	79.0	2.0	81.0	<b>81.0</b>	78.9	0.16
2.5k			9.0	*	102.9	17.8	85.1	1.5	86.6	<b>87.0</b>	89.2	0.10
3.15k			9.2	*	102.9	12.7	90.2	1.0	91.3	<b>91.0</b>	98.9	0.24
4k			8.4	***	101.8	10.5	91.2	0.4	91.6	<b>92.0</b>	114.9	0.99
5k			11.3	***	99.6	11.6	88.1	-0.5	87.6	<b>88.0</b>	139.8	0.43
6.3k			9.2	***	96.7	8.5	88.2	-1.5	86.7	<b>87.0</b>	176.2	0.33
8k			9.5	***	95.3	9.3	86.0	-2.7	83.2	<b>83.0</b>	235.7	0.23
10k			9.6	***	92.6	9.9	82.7	-4.0	78.7	<b>79.0</b>	315.6	0.38

STC = 70 Def = 30

INPUTS:

PULSE PROGRAM TEMPLATE: TL_Sor2_Rec1_Pre-c.plt		AVERAGING TIME: 32 sec	
FREQUENCY RANGE: 40 Hz to 10000 Hz		NUM OF MEASUREMENTS: 5	
Environmental Conditions			
Source Room Start:	74°F 52 % RH	Receive Room Start:	73°F 51 % RH
Source Room Comp:	75°F 52 % RH	Receive Room Comp:	73° F 51 % RH
Source RUN Key:	TL07_120_S2_070508_A	Receive RUN Key:	TL07_120_R1_070508_A
		Ambient RUN KEY:	AMB1_070508_B
		<b>SPECIMEN AREA:</b>	<b>126.0 ft<sup>2</sup></b>
<b>FILE NAME:</b>	<b>TL07_120_070508_A.doc</b>	<b>FILLER WALL:</b>	NA

'\*' or '\*\*\*' on right of AMB see Receive raw data

Test Conducted by: Marc Sciaky