



**Test Report: ISO 354:2003(E) Acoustics – Measurement of sound absorption in a reverberation room.**

Report ID: 354-092812-1

**Description of Specimen: Architectural Acoustic Panel**

Manufacturer: SnapAV  
Woven decorative facing  
AF-021-60-00-00 foam filler  
Airspace: 25 mm  
Frame: 2 inch X 2 inch wood  
Test Setup: 12 panels of dimension 0.615m X 0.615 m  
Specimen surface area: 4.538 m<sup>2</sup>  
Mounting: Type A  
Sealing of outer perimeter edges: None  
Sealing of interior edges of pieces: None

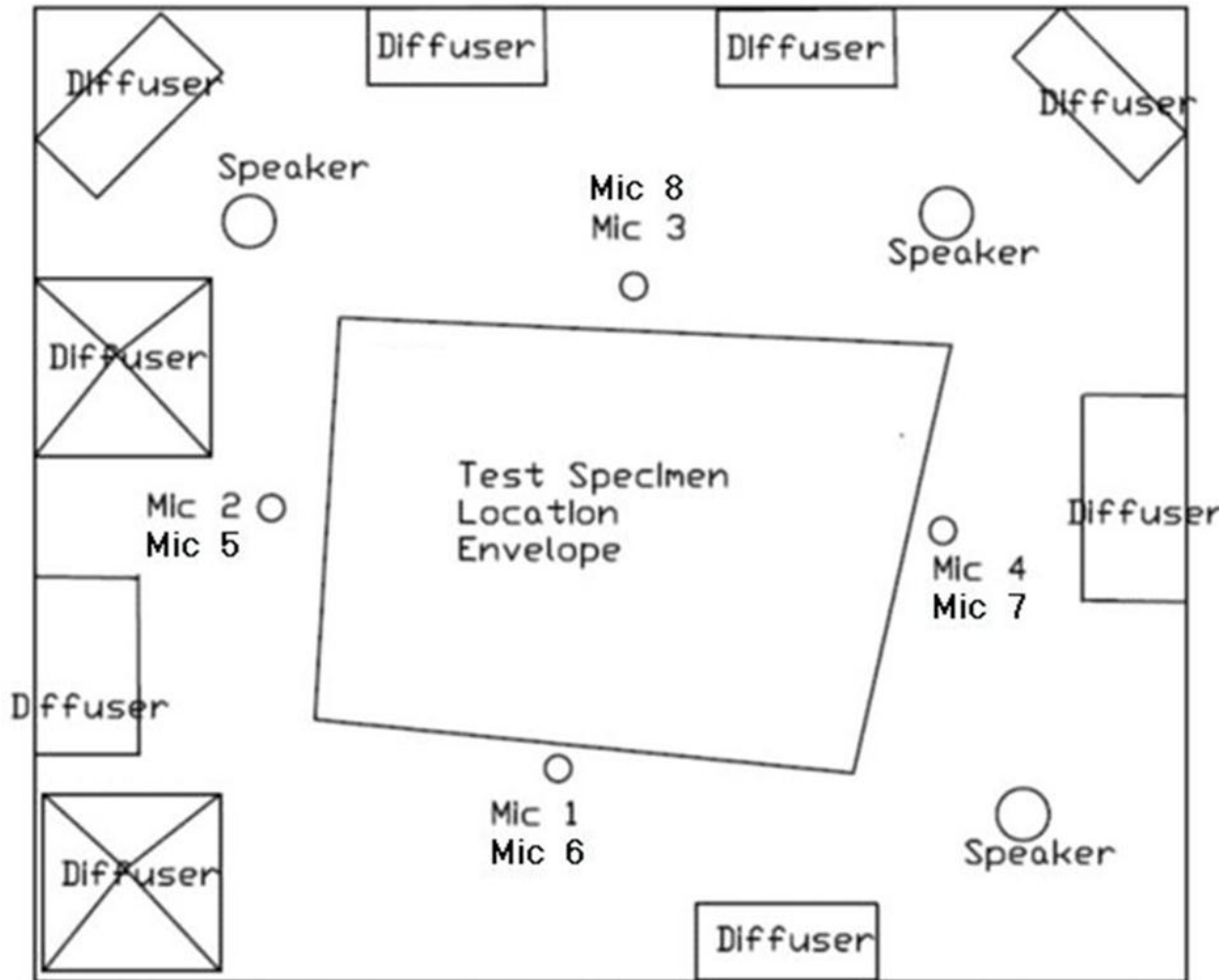
**Reverberation Room Description:**

Shape: Right angle parallelepiped  
Dimensions: Length= 7.925 m, Width= 6.706 m, Height= 3.81 m  
Volume: 202.174 m<sup>3</sup>  
Total Surface Area: 217.78 m<sup>2</sup>  
Diffuser Treatment: Two pyramid diffusers. Dimension L=1.194 m, W=1.194 m, H=0.305 m  
Seven fiberglass panel diffusers. Dimension L=2 m, W=1.219 m  
Microphones: Four  
Microphone Locations: Eight  
Sources: Three

Room	Empty	With test specimen
Temperature	23 °C	23 °C
Relative Humidity	60%	61%

Pa	Microphone		
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Reverberation Room Layout including diffusers, speakers and microphone locations



Microphone Locations with respect to lower left corner

	<b>Microphone</b>	<b>locations</b>	<b>WRT</b>	
	<b>corner</b>	<b>nearest</b>	<b>door</b>	
<b>Microphone</b>	<b>X (m)</b>	<b>Y (m)</b>	<b>Z (m)</b>	<b>Serial No.</b>
1	4.32	1.58	1.24	16863
2	2.26	3.13	2	LW022897
3	4.37	5.93	1.72	LW022899
4	6.62	3.3	2.42	LW022900
5	2.26	3.13	1.24	16863
6	4.32	1.58	2	LW022897
7	6.62	3.3	1.72	LW022899
8	4.37	5.93	2.42	LW022900

Test Setup



## Reverberation time

Frequency	T20 - Room Empty	T20 - Room with Test Specimen
(Hz)	(sec)	(sec)
100	8.7	7.99
125	9.16	8.53
160	8.9	8.01
200	9.91	7.7
250	8.22	5.97
315	8	5.09
400	7.72	4.29
500	8.21	3.91
630	7.61	3.29
800	7.37	3.18
1000	5.62	2.88
1250	4.89	2.75
1600	5.12	2.82
2000	5.32	2.88
2500	5.03	2.76
3150	4.29	2.55
4000	3.51	2.31
5000	2.93	2.04

## Sound Absorption Coefficient

Frequency	Sound Absorption Coefficient
(Hz)	$\alpha_s$
100	0.07
125	0.06
160	0.09
200	0.21
250	0.33
315	0.51
400	0.74
500	0.96
630	1.23
800	1.28
1000	1.21
1250	1.14
1600	1.14
2000	1.14
2500	1.17
3150	1.14
4000	1.06
5000	1.06
NRC	0.92

