Reverberation Room- Facts and Figures

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Alfa Acoustics
Silence through Science

Reverberation Room: - Usage

- Automotive Applications –

  Measurement of sound absorption and sound transmission of sound packages like vehicle carpet, seats, headliner, dash insulator etc.

- Building Acoustics Applications –

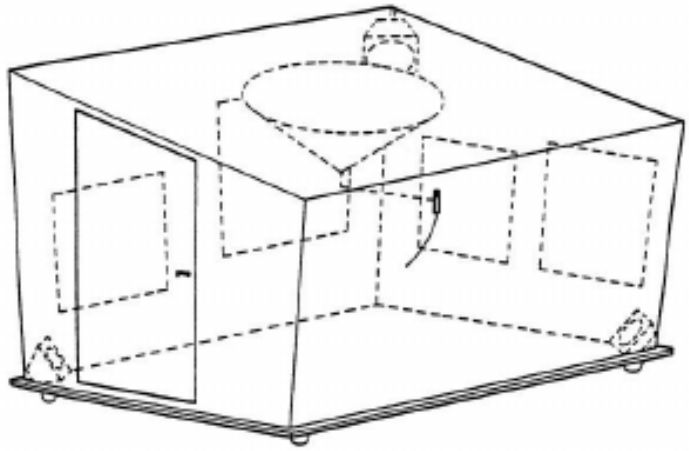
  Measurement of wall panels, ceiling panels, curtains, wall partitions, doors, windows, etc.

Reverberation Room – Test Standards

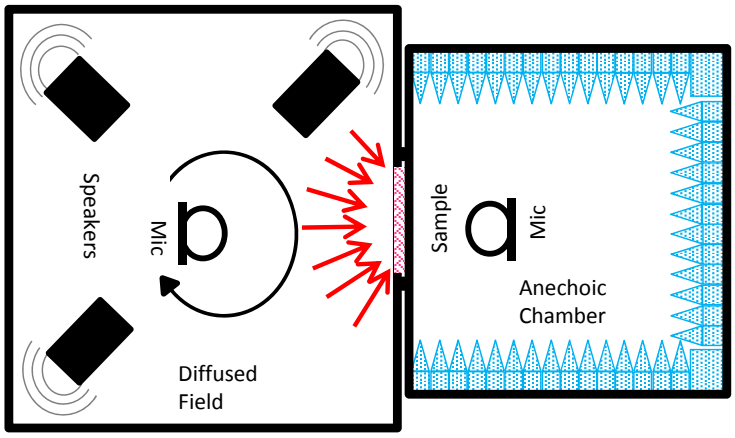
Application	Automotive Acoustics		Building Acoustics	
Tests	Sound Absorption	Sound Transmission Loss	Sound Absorption	Sound Transmission Loss
Test Standard	SAE J2883 (Published in 2015)	SAE J1400*	ISO 354 / ASTM C423	ISO 10140-2 / ASTM E90 or ISO 15186* / ASTM E2249*
Sample Size	0.6 – 1.2 m^2	Min. 1.2 m^2	10-12 m^2	1250 mm x 1500 mm or 10-12 m^2
Volume of Chamber/s	6-25 m^3	Min. 50 m^3	200 m^3	Min. 50 m^3

** One chamber has to be an anechoic chamber*

Reverberation Room- Automotive Applications

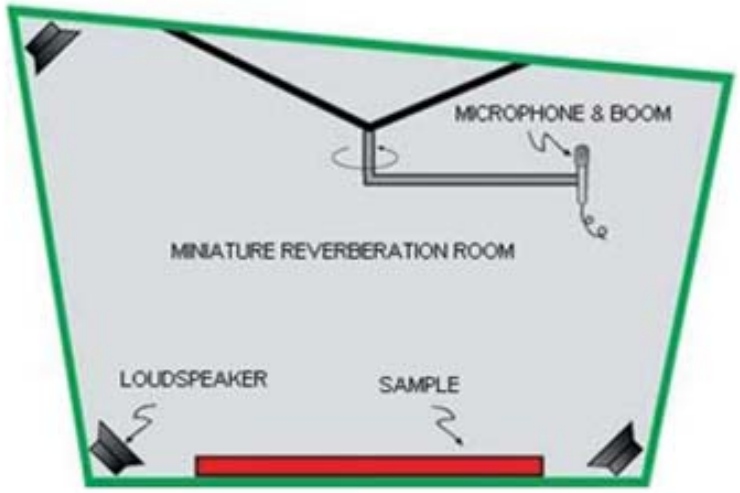


Small Reverberation Room-Alpha Cabin

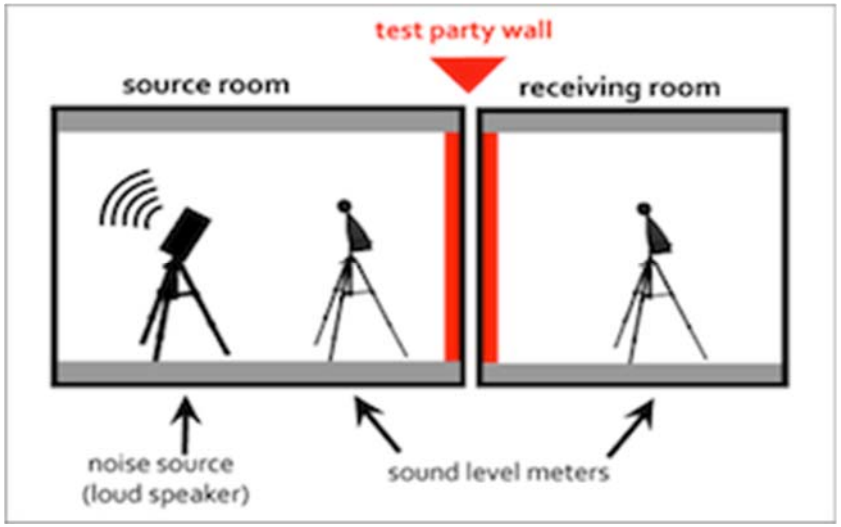


Sound Transmission Loss Facility

Reverberation Room- Building Acoustics Applications



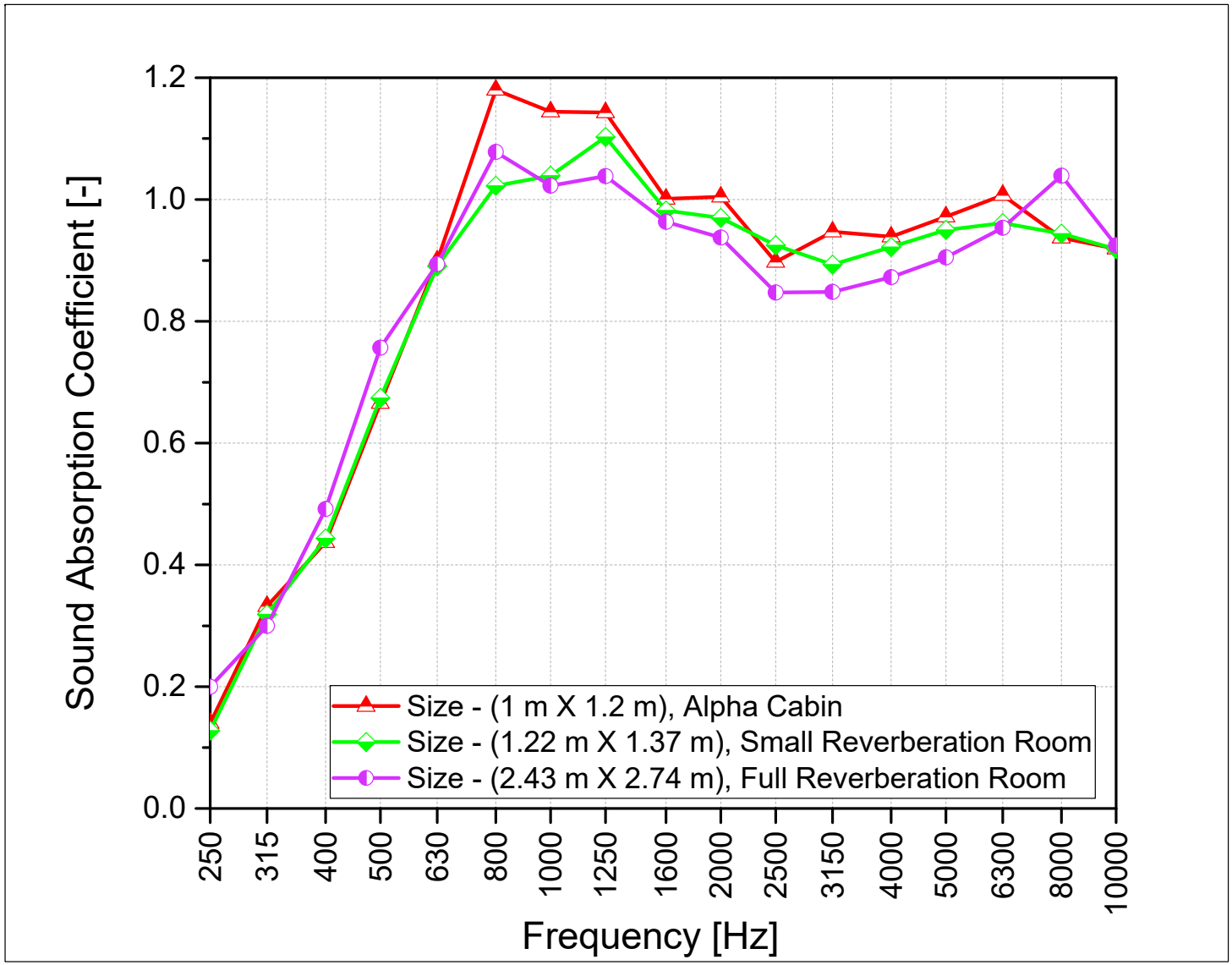
Reverberation Room



Sound Transmission Loss Facility

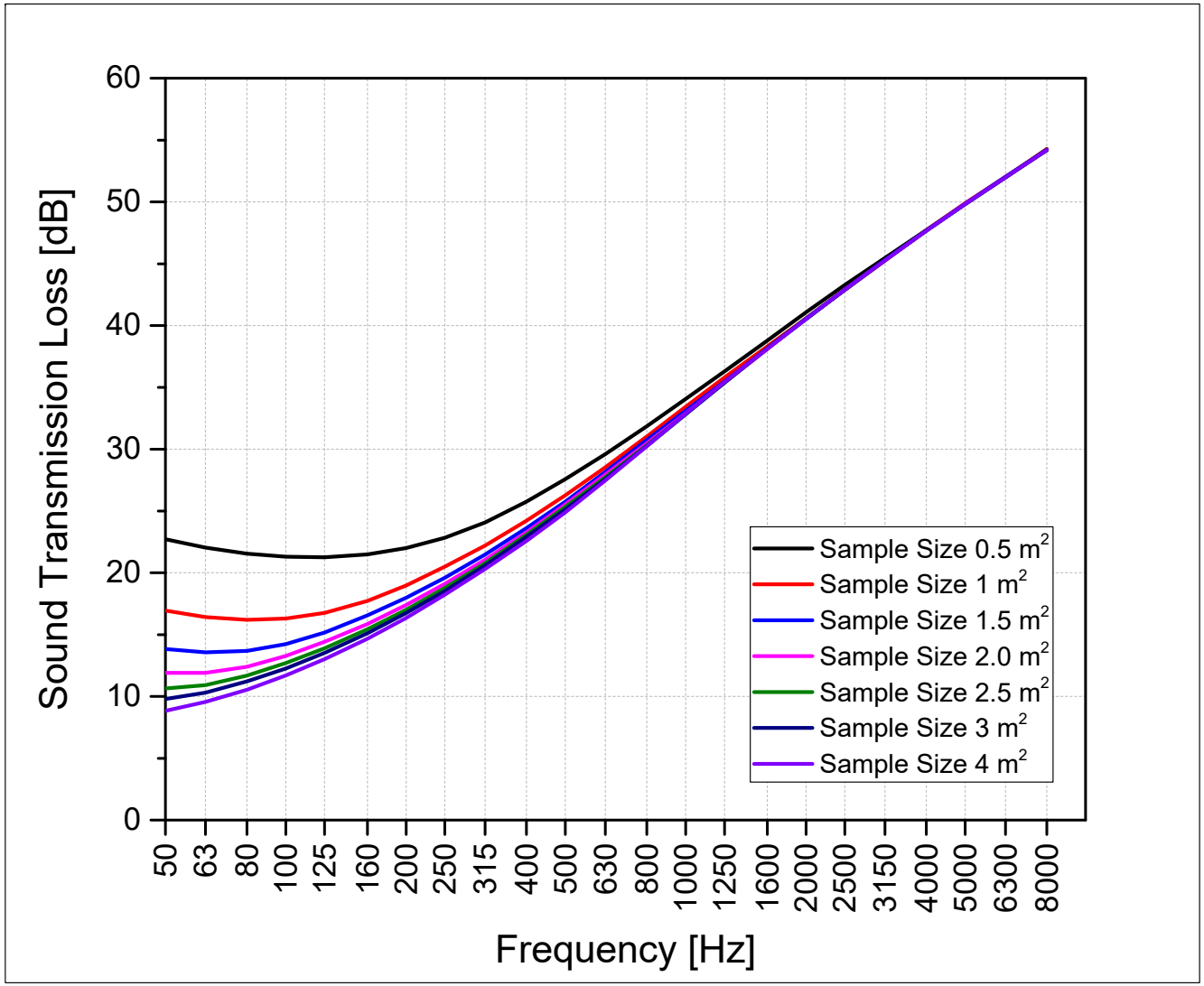
Reverberation Room – Sound Absorption Testing

- Test Sample –Black Ester Foam-25 mm Thick of surface density 478 g/m^2

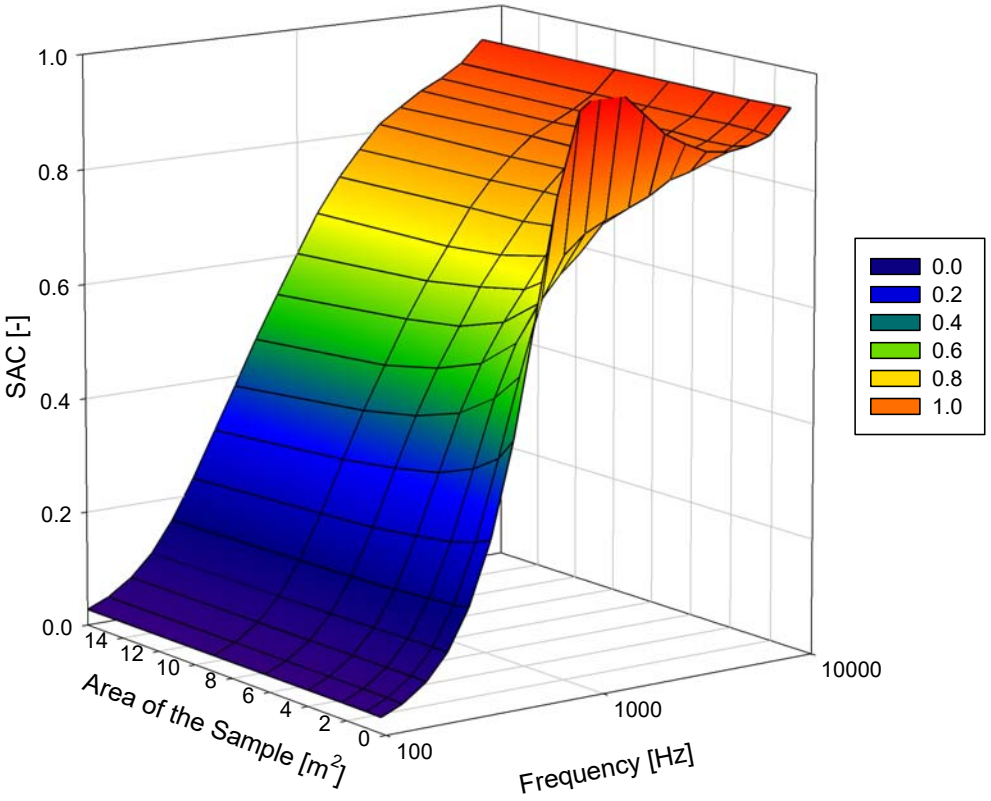


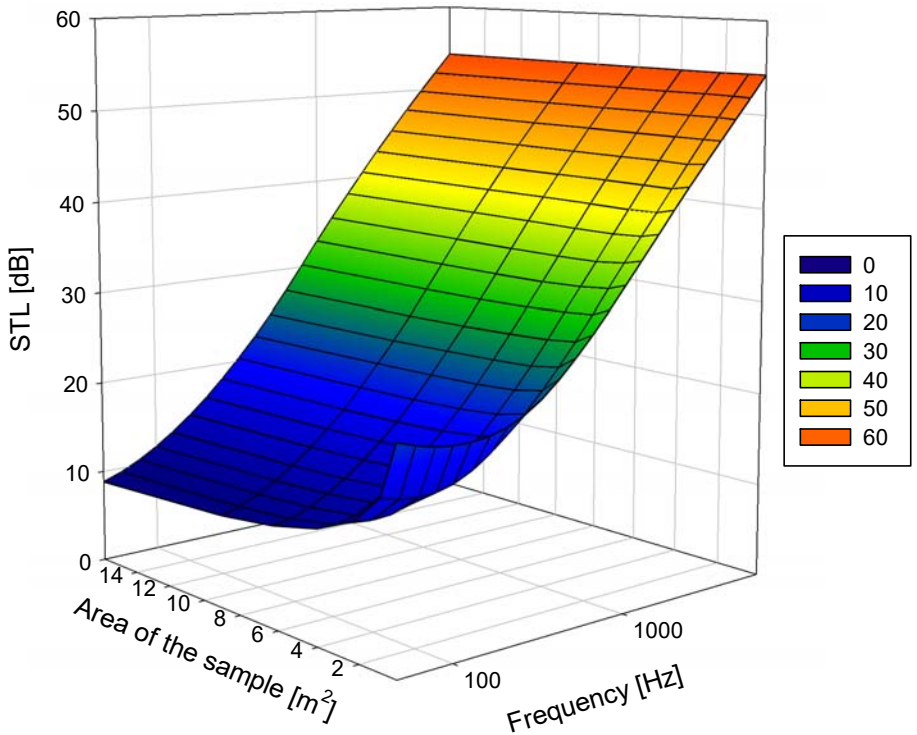
Reverberation Room – Sound Transmission Loss Testing

- Test Sample – Steel Plate 0.8 mm + Melamine Foam 25 mm



Effect of Sample Size- Reverberation Room Testing





Sample size increased from 0.25 to 16 m^2

Thank you for being with us.