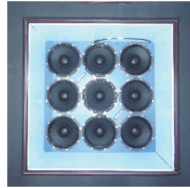




Acoustic Cabin

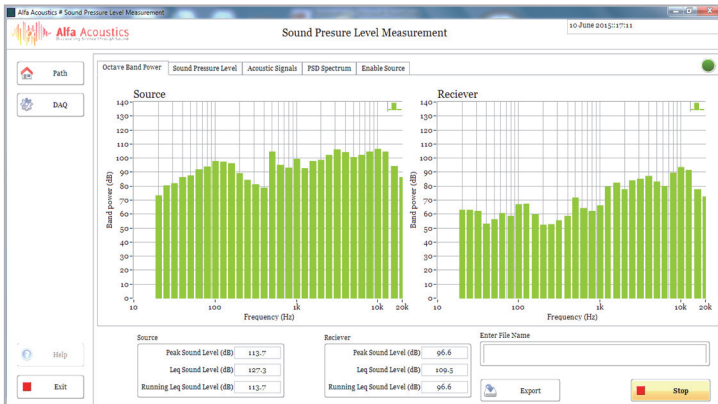


Reception Chamber

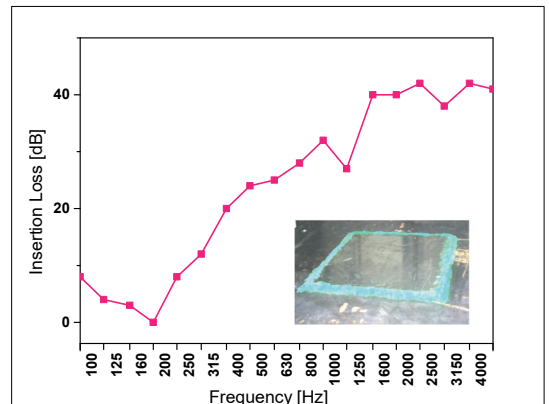


Source Chamber

Alfa Acoustics - Acoustic cabin is a simple test rig used to measure Insertion Loss (IL) of sound package treatments. This test rig resembles with a scaled down model of a reverberation chamber – which acts as a source chamber with noise source of 120 dB and an anechoic chamber – which acts as a reception chamber. The lower and upper part of the chamber are separated by a thick sample mounting plate on which different types of test samples can be mounted easily. This Acoustic cabin is a perfect facility for measurements of acoustic treatments, cavity fillers, grommets, etc. Acoustic cabin can also be customized as per customer test requirements. Alfa Acoustics offers a complete set-up of Acoustic cabin along with microphones, Data Acquisition hardware and measurement software.



Screen Shot of a Measurement Software



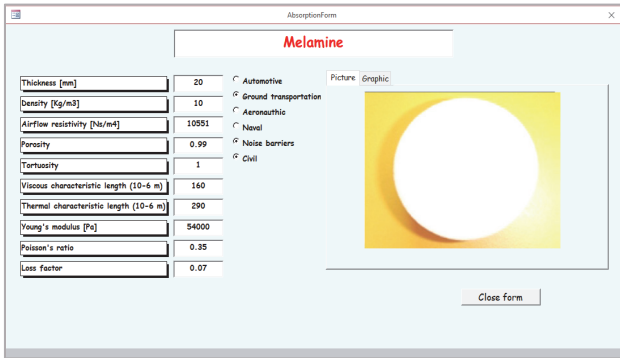
Typical Result of an Acoustic Treatment

Technical Specifications

Salient Features

Acoustic Cabin	
Dimensions	0.9 x 0.9 x 1.8 m (L x B x H)
Sample Size	Min - 350 x 350 mm & Max- 700 x 700 mm
Sound Source	9 Speakers connected to give Sound Pressure Level up to 120 dB
Frequency Range	500 – 10000 Hz
Standards	SAE J2846 (Cavity Fillers), Daewoo-5412
Applications	Insertion loss measurement of Acoustic Baffles (Cavity Fillers), Dash Insulator, Floor Carpet, Grommets, etc.

- Designed as per OEM Test Practices
- Low Cost and Perfect for Quality Control
- Direct data export to excel sheet



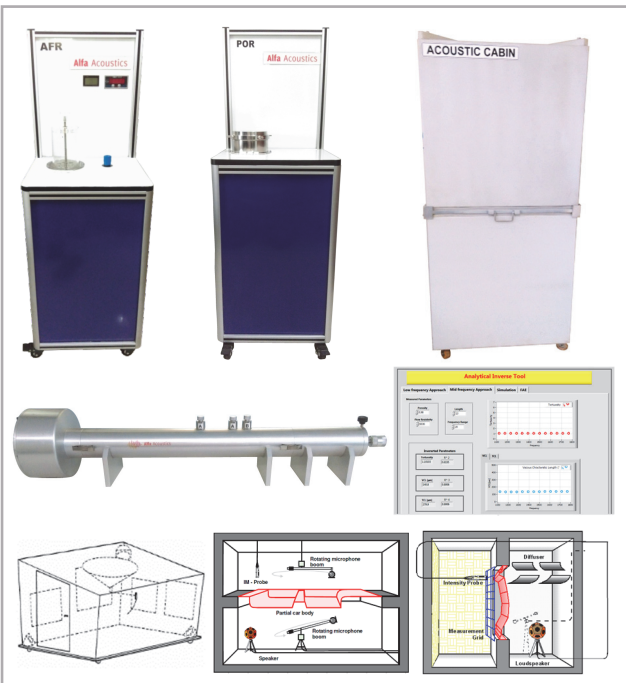
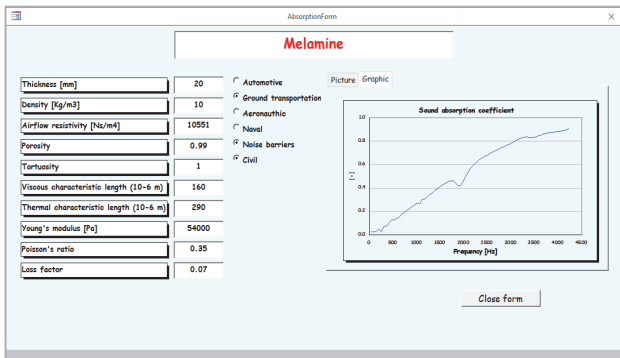
Alfa Acoustics - Acoustic material database is an unique tool for storing acoustic material properties for future usage. This software stores all physical, mechanical and acoustic properties of acoustic materials along with its picture.

The data stored in this software can be easily retrieved, compared and exported for later use in advanced softwares for simulated purpose.

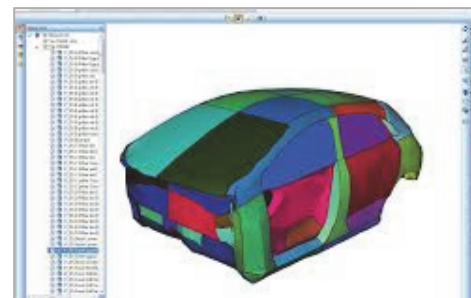
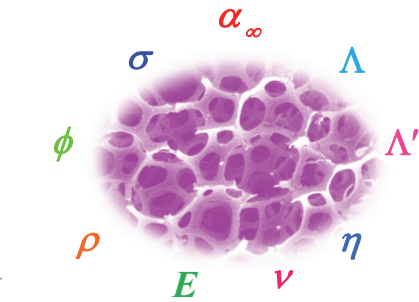
The software can store following parameters also known as Biot Parameters:

- Porosity
- Airflow Resistivity
- Tortuosity
- Viscous Characteristic Length (VCL)
- Thermal Characteristic Length (TCL)
- Density
- Young's Modulus
- Poisson Ratio
- Loss factor
- Sound Absorption Coefficient (SAC)
- Sound Transmission Loss (STL)
- Surface Impedance
- Reflection Coefficient

along with GSM and thickness of the materials



Input Parameters to Acoustic Database



Vehicle Level NVH Simulation in FEA, SEA Software