

Acoustic Testing- Onsite Sound Insulation and RT₆₀



Acoustics is becoming an imporatant aspect in Architectural industry starting from Auditoriums, Apartments, Hospitals, Multiplexes, Offices and Theaters etc. In Architecural industry, an acoustic treatment will be implemented based upon in Lab test reports and acoustic design simulations.

But as a final check, Onsite acoustic testing becomes very important to evaluate the acoustic performance of the overall project. As it is a final check of the overall performance, role of testing lab with extensive expertise is very imporatant.

To overcome this problem, Alfa Acoustics has started onsite acoustic testing. In Archictectural industry, there are two major tests are important – RT_{60} Measurement and Sound insulation tesing. Apart from this, some minor tests are also carried out.





Test Standards-

- Measurement of reverberation time in auditoria as per ISO 3382 / BS 5363
- Acoustics Measurement of the reverberation time in rooms as per AS/NZS 2460
- ASTM E336: Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings
- Standard Guide for Field Measurements of Airborne Sound Insulation of Building Facades and Facade Elements as per ASTM E966
- Field measurement of sound insulation in buildings and of building elements Part 1: Airborne sound insulation as per ISO 16283-1
- Field measurement of sound insulation in buildings and of building elements Part 3: Façade sound insulation as per ISO 16283-3







Airborne Impact Party Floor

Room Acoustics Measurement Setup – Omni directional sound source and Sound Level Meter is also commercially available from Alfa Acoustics.



Sound Absorption Coefficient - Test Standards

- Sound absorption coefficient testing using two microphone impedance tube as per ISO 10534-2 / ASTM E1050 - Normal Incidence Testing
- Measurement of a sound absorption coefficient in a reverberation room as per ISO 354 / ASTM C423 / IS 8225
- Measurement of reverberation time in auditoria as per ISO 3382 / BS 5363

Test Components

False Ceiling Tiles, Acoustic Baffles, Diffusers, Designer Walls, Glasswool, Rockwool, etc.





Sound Absorption Testing in a Reverberation chamber

Sound Transmission Loss - Test Standards

- Measurement of sound insulation in building and building elements in Lab as per ISO 10140 / ASTM E90
- Standard test method for laboratory measurement of airborne sound transmission loss of building partitions using sound intensity as per ISO 15186 / ASTM E2249
- Standard test method for airborne sound attenuation between rooms sharing a common ceiling plenum as per ASTM E1414
- Standard test method for measurement of airborne sound attenuation between rooms in buildings as per ASTM E336
- Field measurement of sound insulation in buildings and of building elements Part 1: Airborne sound insulation as per ISO 16283-1
- Field measurement of sound insulation in buildings and of building elements Part 2: Impact sound insulation as per ISO 16283-2
- Field measurement of sound insulation in buildings and of building elements Part 3: Façade sound insulation as per ISO 16283-3

Test Components

Dry Walls, Doors, Windows, False Ceiling, etc.



Partition Wall Testing in a Reverberation Suite



Sound Insulation Testing On-site