To apply for A2LA accreditation under the Acoustics & Vibration field of testing, each applicant is required to identify the test type/test technology and associated test method(s) or parameters for which accreditation is sought on Table A below. Please check off all tests for which accreditation is being sought in the space provided. Or, if you would prefer, attach your own list of tests. In addition, please identify the types of products, materials, and/or structures that your laboratory tests on Table B below. This will ensure that an assessor’s technical expertise is correctly matched to the testing that your laboratory performs and enables A2LA staff to generate the desired draft Scope of Accreditation.

Table A contains a list of many well-known test methods; however this list is by no means an exhaustive list. Please note that any publicly available method can be accredited and listed on the scope of accreditation. If you are interested in any methods that are not listed, please add them in the space provided.

**Table A**

**MATERIAL PROPERTIES**

*General*

|  |  |  |
| --- | --- | --- |
|  | ASTM C367 | Strength properties of prefabricated architectural acoustical tile or lay-in ceiling panels |
|  | ASTM C522 | Airflow resistance of acoustical materials |
|  | ASTM C523 | Light reflectance of acoustical materials by the integrating sphere reflectometer |
|  | ASTM E756 | Measuring vibration-damping properties of materials |
|  | SAE J1637 | Laboratory measurement of the composite vibration damping properties of materials on a supporting steel bar |
|  | AAMA 1801 | Acoustical rating of windows, doors, and glazed wall systems |

*Sound absorption*

|  |  |  |
| --- | --- | --- |
|  | ASTM C384 | Impedance and absorption of acoustical materials by the impedance tube method |
|  | ASTM C423 | Sound absorption and sound absorption coefficients by the reverberation room method |
|  | ISO 354/ASISO 354 | Acoustics/Measurement of sound absorption in a reverberation room |
|  | ASTM E1050 | Impedance and absorption of acoustical materials using a tube, two microphones, and a digital frequency analysis system |

Sound transmission – airborne

*Field testing*

|  |  |  |
| --- | --- | --- |
|  | ASTM E336 | Measurement of airborne sound insulation in buildings |
|  | ASTM E966 | Guide for field measurement of airborne sound insulation of building facades and facade elements |

*Laboratory testing*

|  |  |  |
| --- | --- | --- |
|  | ASTM E90 | Laboratory measurement of airborne sound transmission loss of building partitions |
|  | [ISO 10140-1:2010](http://www.iso.org/iso/home/store/catalogue_ics/catalogue_detail_ics.htm?csnumber=42092) | (old version-ISO 140 , Part 3) Laboratory measurement of airborne sound insulation of building elements |
|  | ASTM E596 | Laboratory measurement of noise reduction of sound-isolating enclosures |
|  | ASTM E1375 | Measuring the interzone attenuation of furniture panels used as acoustical barriers |
|  | ASTM E1376 | Measuring the interzone attenuation of sound reflected by wall finishes and furniture panels |
|  | ASTM E1111 | Measuring the interzone attenuation of ceiling systems |
|  | ASTM E1414 | Airborne sound attenuation between rooms sharing a common ceiling plenum & (new version of ISO 140, Part 9) Laboratory measurement of room-to-room airborne sound insulation of a suspended ceiling with a plenum above |
|  | AS/NZS 2499 | Measurements of sound insulation in buildings and of building elements – Laboratory measurement of room-to-room airborne sound insulation of a suspended ceiling with plenum above it |
|  | ASTM E477 | Measuring acoustical and airflow performance of duct liner materials and prefabricated silencers |
|  | AMA-1-11-67 | Ceiling sound transmission test by two-room method |
|  | SAE J1400 | Laboratory measurement of the airborne sound barrier performance of automotive materials and assemblies |
|  | ASTM E1222 | Laboratory measurement of the insertion loss of pipe lagging systems |

Sound transmission– structure borne

*Field testing*

|  |  |  |
| --- | --- | --- |
|  | ASTM E1007 | Field measurement of tapping machine impact sound transmission through floor-ceiling assemblies and associated support structures |

*Laboratory*

|  |  |  |
| --- | --- | --- |
|  | ASTM E492 | Laboratory measurement of impact sound transmission through floor-ceiling assemblies using the tapping machine |
|  | ASTM E2179 | Laboratory measurement of the effectiveness of floor coverings in reducing impact sound transmission through concrete floors |
|  | [ISO 10140-1:2010](http://www.iso.org/iso/home/store/catalogue_ics/catalogue_detail_ics.htm?csnumber=42092&ICS1=91&ICS2=120&ICS3=20) | (new version of ISO 140-8:1997) Acoustics -- Measurement of sound insulation in buildings and of building elements -- Part 8: Laboratory measurements of the reduction of transmitted impact noise by floor coverings on a heavyweight standard floor |
|  | ISO 10848-2 | Acoustics – Laboratory measurement of the flanking transmission of airborne and impact sound between adjoining rooms – Part 2: application to light elements when the junction has a small influence |

**SOUND POWER**

*General*

|  |  |  |
| --- | --- | --- |
|  | ISO 3744 | Determination of sound power levels of noise sources engineering methods for free-field conditions over a reflecting plane |
|  | ANSI S12.54 | Determination of sound power levels of noise sources using sound pressure – Engineering method in an essentially free field over a reflecting plane |
|  | ISO 3745 | Determination of sound power levels of noise sources precision methods for anechoic and semi-anechoic rooms |
|  | ANSI S12.55 | Determination of sound power levels of noise sources using sound pressure – Precision methods for anechoic and hemi- anechoic rooms |
|  | ISO 3741 | Determination of sound power levels of noise sources precision methods for broad-band sources in reverberation rooms |
|  | ANSI S12.51, S12.53 (1&2), 54.55 | Determination of sound power levels of noise sources using sound pressure – precision method for reverberation rooms |

*Machine Specific*

|  |  |  |
| --- | --- | --- |
|  | ANSI S12.10 | Measurement and designation of noise emitted by computer and business equipment |
|  | ANSI S12.11 | Measurement of noise emitted by small air-moving devices |
|  | ANSI S12.5 | Requirements for the performance and calibration of reference sound sources |
|  | ISO 9296 | Acoustics – Declared noise emission values of computer and business equipment |
|  | ECMA 74 | Measurement of airborne noise emitted by information technology and telecommunication equipment |
|  | ISO 7779 | Measurement of airborne noise emitted by computer and business equipment |
|  | ISO 6926 | Determination of sound power levels of noise sources requirements for the performance and calibration of reference sound sources |
|  | ISO 3822 | Laboratory tests on noise emission from appliance and equipment used in water supply installations |
|  | SAE J1477 | Measurement of interior sound levels of light vehicles |
|  | ISO 11201 | Noise emitted by machinery and equipment – Measurement of emission sound pressure levels at a workstation and at other specified positions – Engineering method in an essentially free field over a reflecting plane |
|  | IEC 60704-1 | Household and similar electrical appliances – Test code for the determination of airborne acoustical noise emitted by household and similar electrical appliances – Part 1: General requirements |
|  | IEC 60704-2-3 | Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-3: Particular requirements for dishwashers |
|  | ECMA 109 | Declared noise emission values of information technology and telecommunications equipment |
|  | ISO 10302 | Acoustics - Method for the measurement of airborne noise emitted by small air-moving devices |
|  | ISO 8960 | Refrigerators, frozen-food storage cabinets and food freezers for household and similar use – Measurement of emission of airborne acoustical noise |
|  | IEC 60704-2-4 | Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-4: particular requirements for washing machines and extractors |
|  | IEC 60704-2-6 | Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-6: Particular requirements for tumble-dryers |
|  | ANSI S12.15 | Portable electric power tools, stationary and fixed electric power tools, and gardening appliances – Measurement of sound emitted |
|  | IEC 60704-2-14 | Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-14: Particular requirements for refrigerators, frozen-food storage cabinets and food freezers |
|  | ISO 3747 | Acoustics. Determination of sound power levels and sound energy levels of noise sources using sound pressure. Engineering/Survey methods for user in situ in a reverberant environment |

**HEARING PROTECTORS**

|  |  |  |
| --- | --- | --- |
|  | ANSI S3.19 | Measurement of real-ear protection of hearing protectors and physical attenuation of earmuffs |
|  | ANSI S12.6 | Methods for measuring the real-ear attenuation of hearing Protectors |
|  | AS/NZS 1270 | Acoustics –Hearing protectors |
|  | ANSI S12.42 | Methods for measurement of insertion loss of hearing protection devices in continuous or impulsive noise using microphone-in-real-ear or acoustics test fixture procedures |
|  | BS EN 352-1 | Hearing protectors. Safety requirements and testing. Earmuffs |
|  | BS EN 352-2 | Hearing protectors. Safety requirements and testing. Earplugs |
|  | BS EN 352-3 | Hearing protectors. Safety requirements and testing. Earmuffs attached to an industrial safety helmet |
|  | BS EN 352-4 | Hearing protectors. Safety requirements and testing. Level- dependent earmuffs |
|  | BS EN 352-5 | Hearing protectors. Safety requirements and testing. Active noise reduction earmuffs |
|  | BS EN 352-6 | Hearing protectors. Safety requirements and testing. Earmuffs with electrical audio input |
|  | BS EN 352-7 | Hearing protectors. Safety requirements and testing. Level- dependent ear plugs |
|  | BS EN 352-8 | Hearing protectors. Safety requirements and testing. Entertainment audio earmuffs |

Please add any additional methods for which accreditation is being sought, that are not listed above, here.

|  |  |  |
| --- | --- | --- |
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|  |  |  |

## Table B

Types of products, materials, and/or structures that the laboratory tests:

|  |
| --- |
| e.g. Aerospace components, Military equipment, Nuclear equipment, Commercial and Automotive components |
|  |
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|  |

**DOCUMENT REVISION HISTORY**

|  |  |
| --- | --- |
| **Date** | **Revision** |
| 01/05/19 | * Integrated into Qualtrax |
| 09/11/19 | * Updated Header/Footer to current version * Updated format and font for consistency |