

13.1. APPENDIX 13.1 – Glossary of Acoustic Terms

Ambient Noise

Totally encompassing sound in a given situation at a given time usually composite of sounds from many sources near and far.

A-weighting, dB(A)

The most widely used weighting mechanism that best corresponds to the response of the human ear is the 'A'-weighting scale. This is widely used for environmental noise measurement, and the levels are denoted as dB(A) or L_{Aeq} , L_{A90} etc., according to the parameter being measured.

Decibel (dB)

A logarithmic scale for comparing the ratios of two quantities, including sound pressure and sound power. The decibel can also be used to measure absolute quantities by specifying a reference value that fixes one point on the scale. For sound pressure, the reference value is $20\mu\text{Pa}$.

Façade position

A vertical reflective surface located approximately 1m behind the microphone position.

Free-field position

No reflective surfaces, other than the ground, within 3.5 metres of the microphone position.

Noise Level Indices

$L_{eq,T}$

A noise level index called the equivalent continuous noise level over the time period T. This is the level of a notional steady sound that would contain the same amount of sound energy as the actual, possibly fluctuating, sound that was recorded.

$L_{max,T}$

A noise level index defined as the maximum noise level during the period T. L_{max} is sometimes used for the assessment of occasional loud noises, which may have little effect on the overall L_{eq} noise level but will still affect the noise environment. Unless described otherwise, it is measured using the 'fast' sound level meter response.

$L_{10,T}$

The noise level exceeded for 10% of the time over the period T. L_{10} used to express road noise level.

$L_{90,T}$

The noise level that is exceeded for 90% of the measurement time interval, T. L_{90} can be considered to be the "average minimum" noise level and is often used to describe the background noise

Building Acoustics

C_{tr}

A low frequency correction used replicate the effect of road traffic noise spectrum.

$D_{ne,w}$

Weighted element-normalised level difference. Single number rating used to describe the sound insulation performance of a small building element.

R_w

Single number rating used to describe the laboratory airborne sound insulation properties of a material or building element over a range of frequencies, typically 100-3150Hz.