

In-situ Absorption Setup



Application Leaflet

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In-situ absorption setup

Microflown offers a complete solution to assess the acoustic properties of damping materials, not only for product development but also for end of line testing on the damping materials itself or on the assembled parts with the *In-situ absorption setup*. With a small, handheld impedance gun the acoustic absorption, reflection or impedance can be measured in just a few minutes, broad banded, under normal and oblique angles. This in situ absorption method is a true alternative for the well known Kundt's method or reverberant room method. With a sound source at 23cm from the probe noise is generated towards the sample. The sound pressure and acoustic particle velocity are

measured right at the surface of the material. Taking (destructive) samples is no longer required, and also the absorption of sound waves under oblique angles of incidence, as they occur in practice of course, can finally be tested. Extremely high spatial resolution allows analysis of inhomogeneous, e.g. perforated, materials. As the in situ method also works with a relative movement between sample and probe, the end of line manufacturing control of damping materials has become possible. Curved materials can be measured, so the quality of the acoustic package as applied in the final assembly lines can be tested.



A truly in situ method to accurately measure your material properties

Application features

- ✓ Frequency range 300Hz - 10kHz
- ✓ In situ method
- ✓ Non destructive method
- ✓ High spatial resolution
- ✓ Normal & oblique angles of incidence
- ✓ Flat & curved surfaces
- ✓ Homogeneous & inhomogeneous materials
- ✓ Can be used for:
 - Product development
 - End of line control before and after assembly

