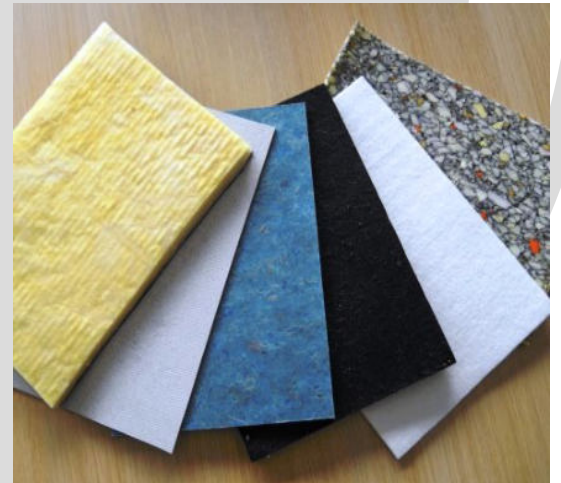
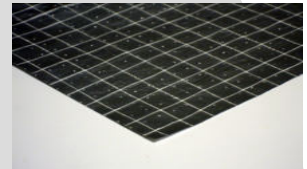


# TubeCell

*Don't change your setup,  
just improve the way you are using it !*



**TubeCell** is an acquisition software to manage **impedance tube measurements**.

It is adapted for both the assessment of surface properties and **porous material characterization**.

Working under a measurement mode or a post-processing mode, it will simplify your measurement campaign.

It is asked for by technicians and required by engineers.

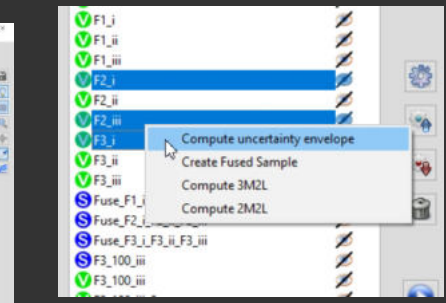
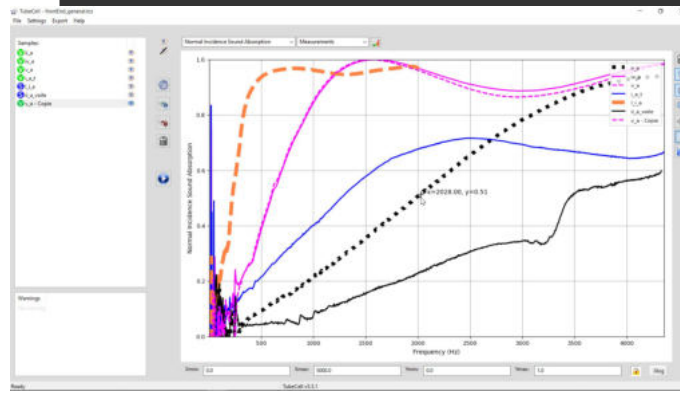
Prepare to be **MATELYS** approved !



TubeCell is a software product by MATELYS-Research Lab > <https://tubecell.matelys.com>



# TubeCell

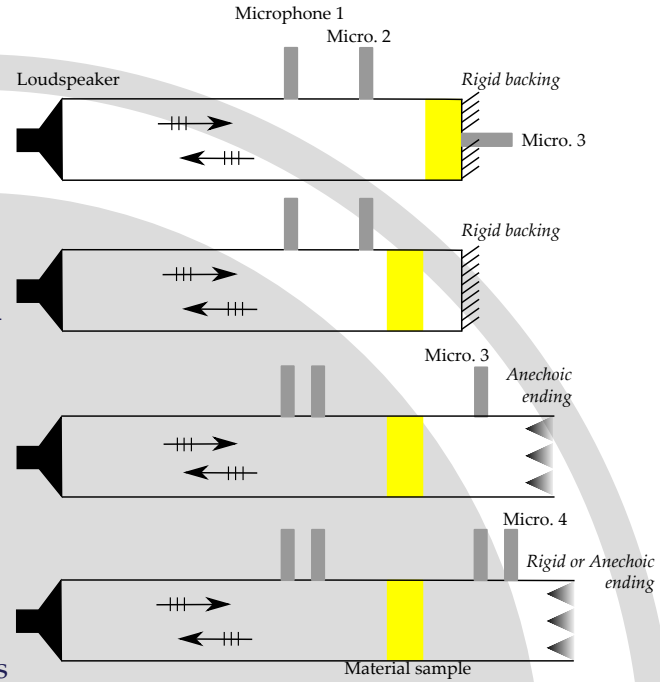


## For surface properties measurements or porous characterization

- adapted to your existing setup
- handles arbitrary impedance tube configurations
- manages the pre- and post-processing.

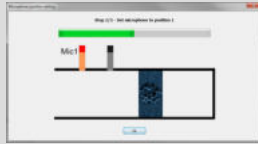
### Key features

- complying ISO 10534-2, ASTM E1050-12, ASTM E2611
- various source signals : PRN, white noise ...
- individual microphone calibration
- ICP and power conditioned microphones
- guided measurement procedure
- asymmetric material measurement ( $\rho_{eq}, K_{eq}, \chi$ )
- measurement uncertainty envelopes
- inter sample dispersion envelopes
- arbitrary test section circular from/to square
- quality check
- handles temperature, pressure and humidity conditions



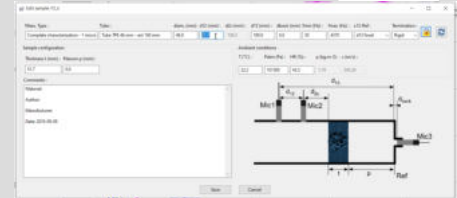
### Surface properties

- absorption
- transmission
- reflection coefficient
- surface impedance
- microphone transfer functions
- coherences & autospectra
- transfer matrix coefficients



### Bulk properties

- dynamic mass density
- dynamic compressibility
- characteristic wave number
- characteristic wave impedance
- dissipated powers

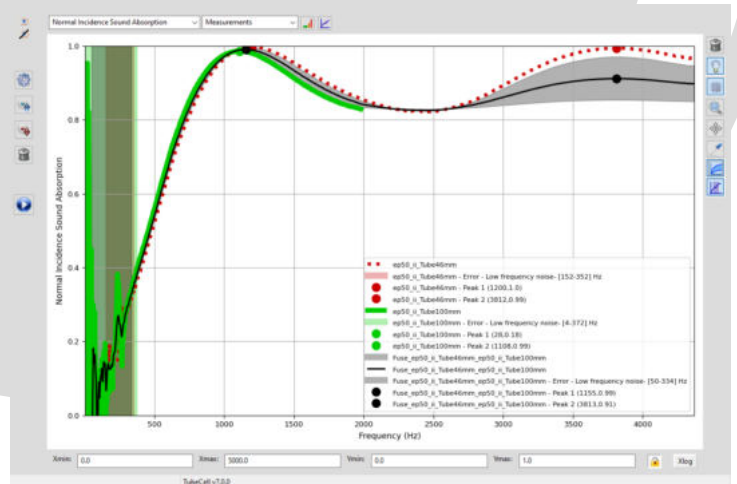


### Dedicated features

- 2M2L & 3M2L methods
- overlapping procedure
- automatic analysis based on AI
- multiple sample export
- third octave band post-processing
- native export of impedance data :

OptiStruct, Actran, Coustyx, VA-One ...

- export to AlphaCell
- export to RoKCell
- data compatible with DBCell



MATELYS also provides turnkey impedance tubes and characterization setups for : porosity, resistivity, tortuosity, elastic modulus ...

