

RokCell characterizes the parameters representative of the **acoustic energy dissipation** in porous media.

Its main objective is to provide values which **physically relates** to the **material behavior**.

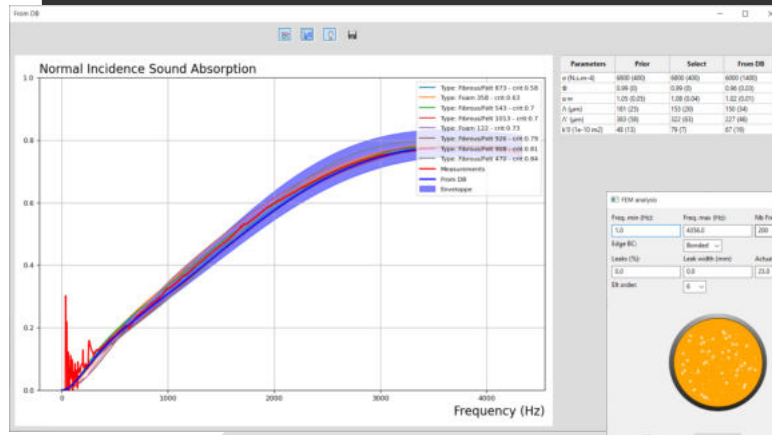
Three modes are available according to the type of studied materials :

- **JCAL** for **porous materials** : fibrous, cellular foams, granular media,
- **SCREEN** for screens, **fabrics**, woven, non-woven textiles, **perforated plates**,
- **LINER** for any porous media to be described with a **time-domain impedance model**.



Prepare to be **MATELYS** approved !





Use your existing setup and characterize !

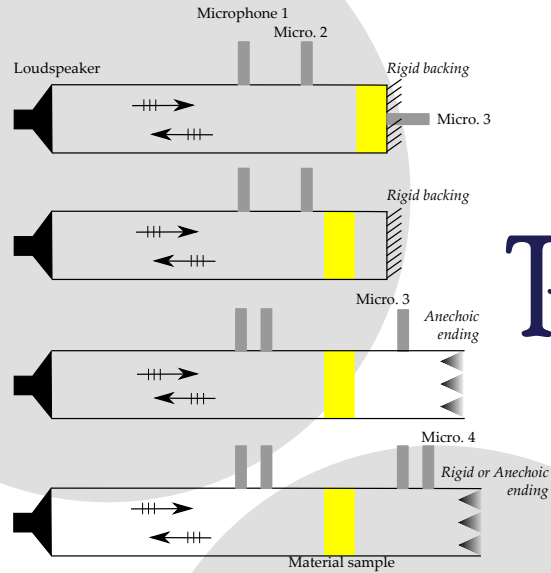
Inputs

Impedance tube measured data obtained with :

- the three microphone technique
- the four microphone technique
- the 2 micros / 2-load method
- the 3 micros / 2-load method

To be used ideally with **TubeCell** acquisition software.

MATELYS also provides **turnkey equipments** and **customised setups** : porosity, resistivity, elastic modulus ...



Introduce accurate inputs in your design process !

FEM, CAA, SEA, Ray-tracing tools...

Key features

- **analytical inversion**
- check for **parameter consistency**
- **Bayesian inversion**
- comparison with **material DB using Machine Learning**
- **air flow resistivity and open porosity estimation** from acoustical measurements
- **FEM module to estimate bonding or leakages effects**

Outputs for porous materials

- JCA / JCAL parameters

Outputs for screens and perforated plates

- resistivity, opening rate, JCA equivalent parameters

Output for liners

- parameters for **Özyörük** time-domain impedance model

Dedicated export to

- **AlphaCell**
- **DBCell**
- **Actran** (Hexagon product)

