



acoustex 2019

the sound of innovation

in architecture

Fachmesse für Noise-Control und Sound-Design
01. – 02. Oktober 2019

The acoustic behaviour of a sandwich panel

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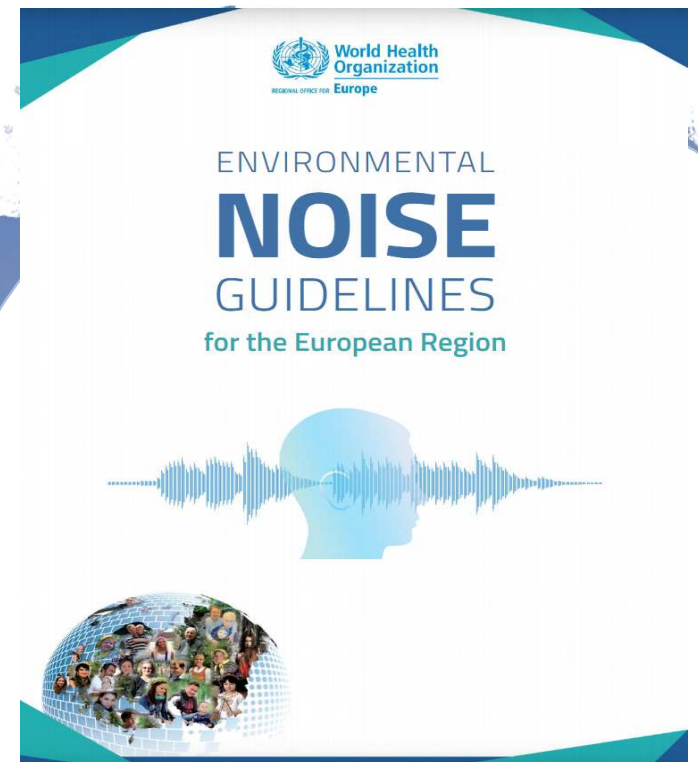
meTecno
SOUND



seit 1961

Why?

→ 100.000.000



How?

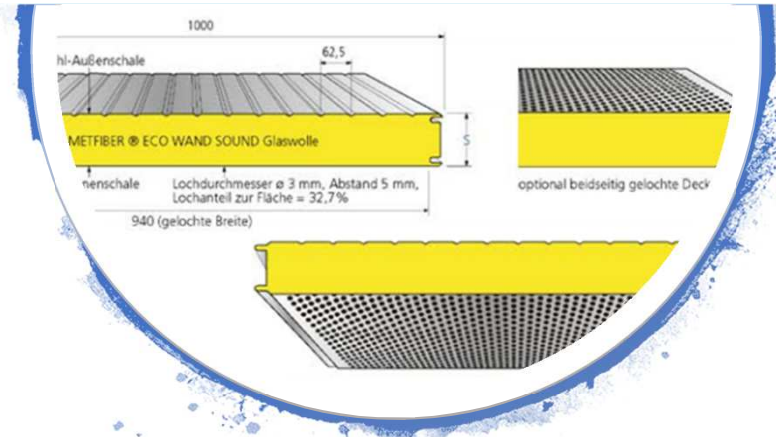
Influence transmission path

- └ Airborne sound insulation
- └ Sound absorption



What?

- † Sandwich panel
- † Mineral wool (stone / glass)
- † Perforated / non perforated
- † Galvanised steel / aluminium / stainless steel
- † Colour range
- † Lengths up to 25 m



Where?

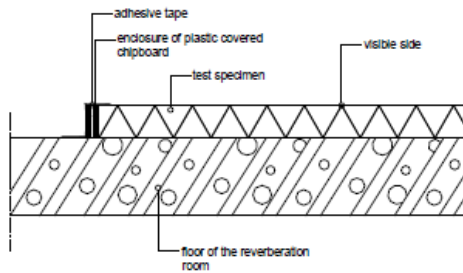
- └ Generator buildings
- └ Partition walls
- └ Reverberation correction
- └ Perforated / non perforated



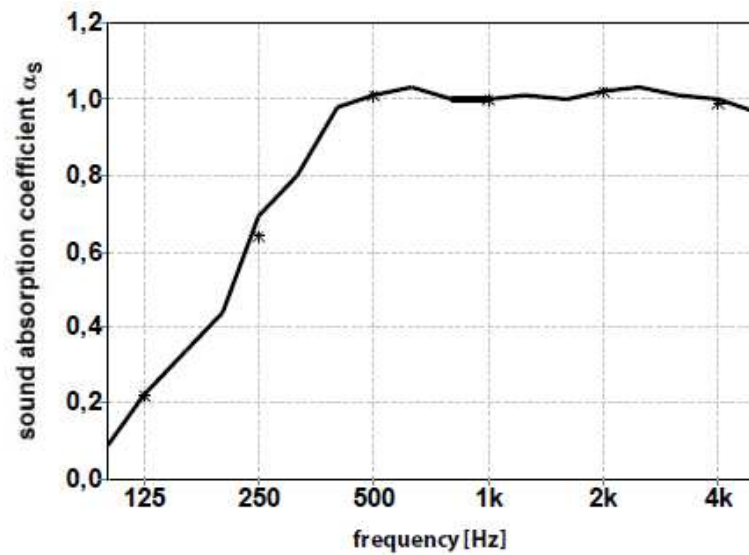
Acoustic behaviour?

- └ Absorption
- └ Airborne sound insulation

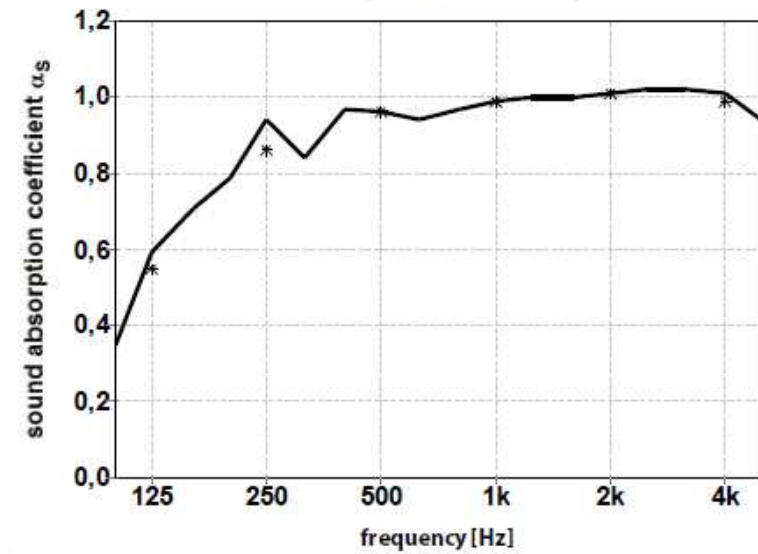
Absorption



Absorption Thickness



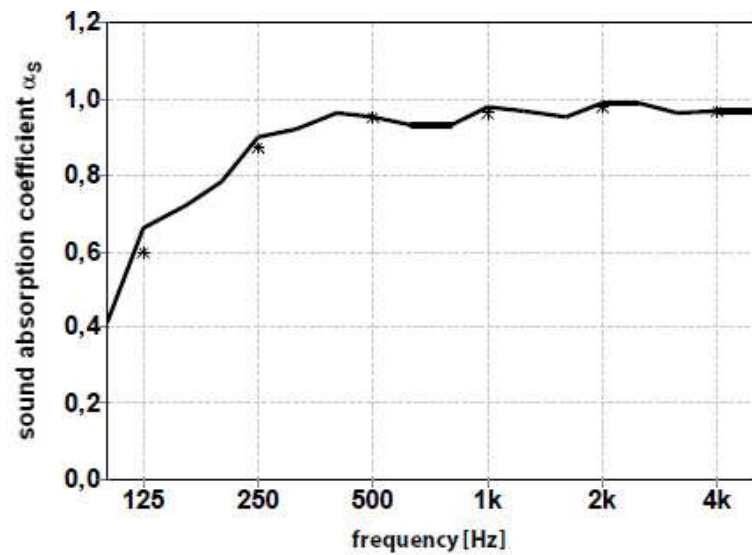
50 mm



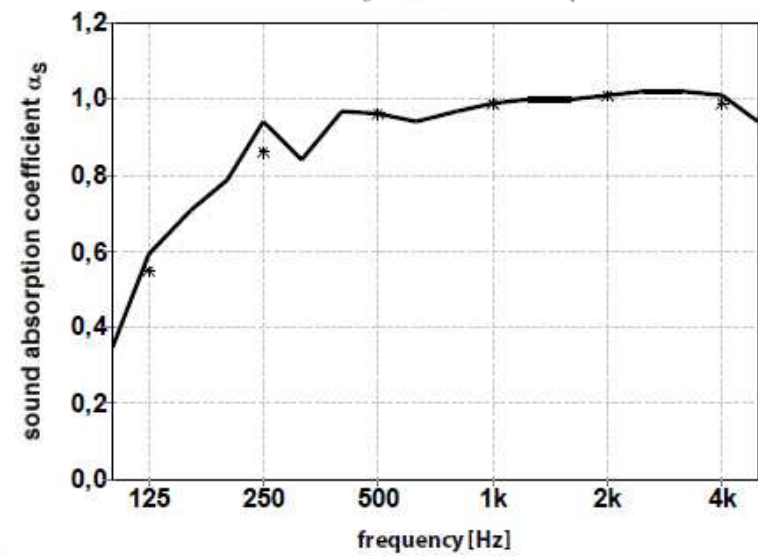
100 mm



Absorption core



100 mm glasswool



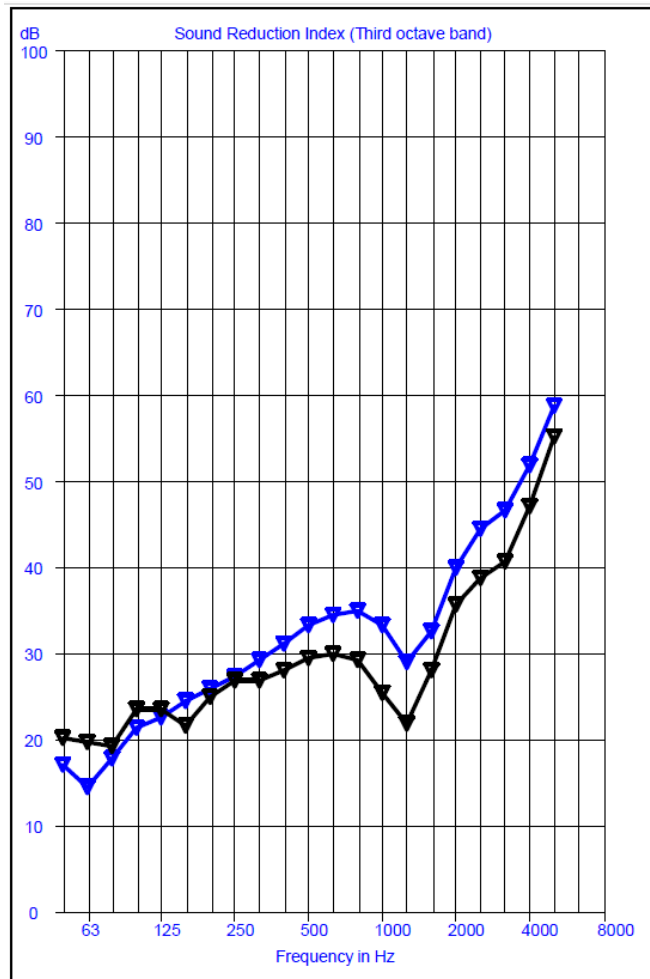
100 mm stonewool



Airborne insulation

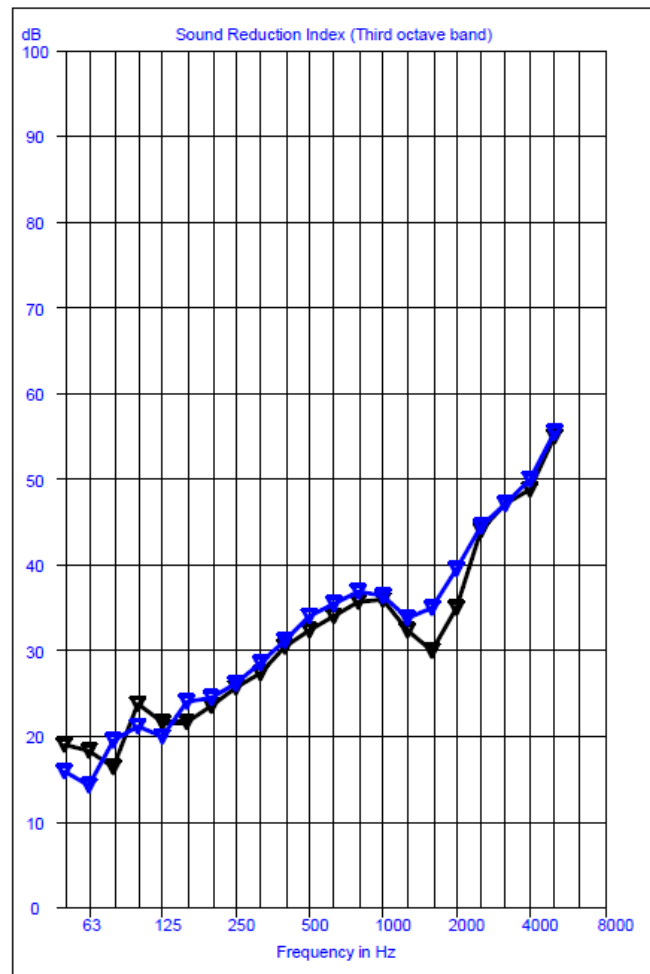


Perforation



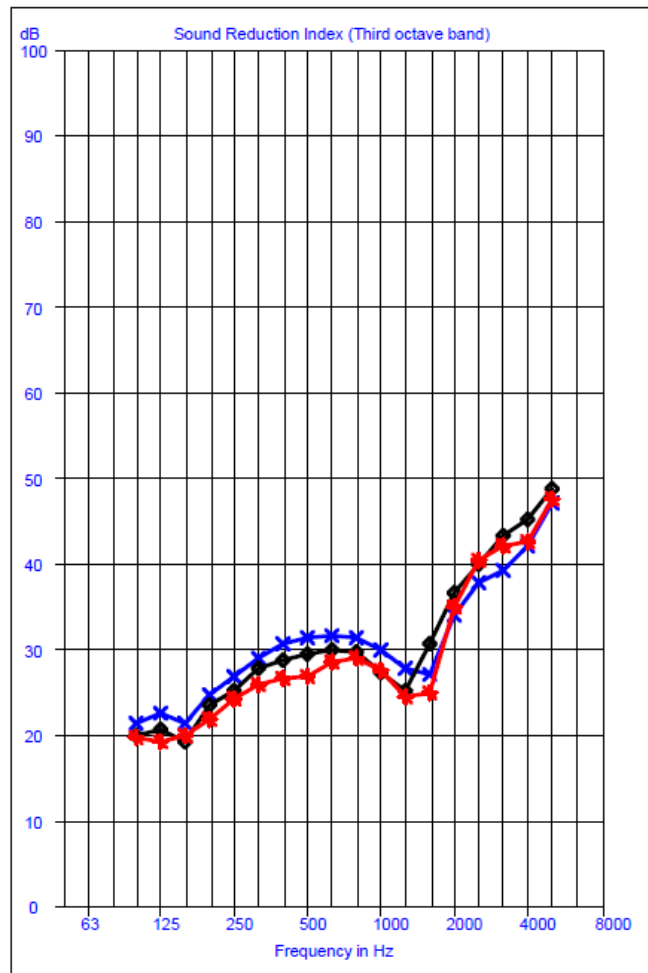
Perforation gives 4 dB better R_w value

Glasswool / Stonewool



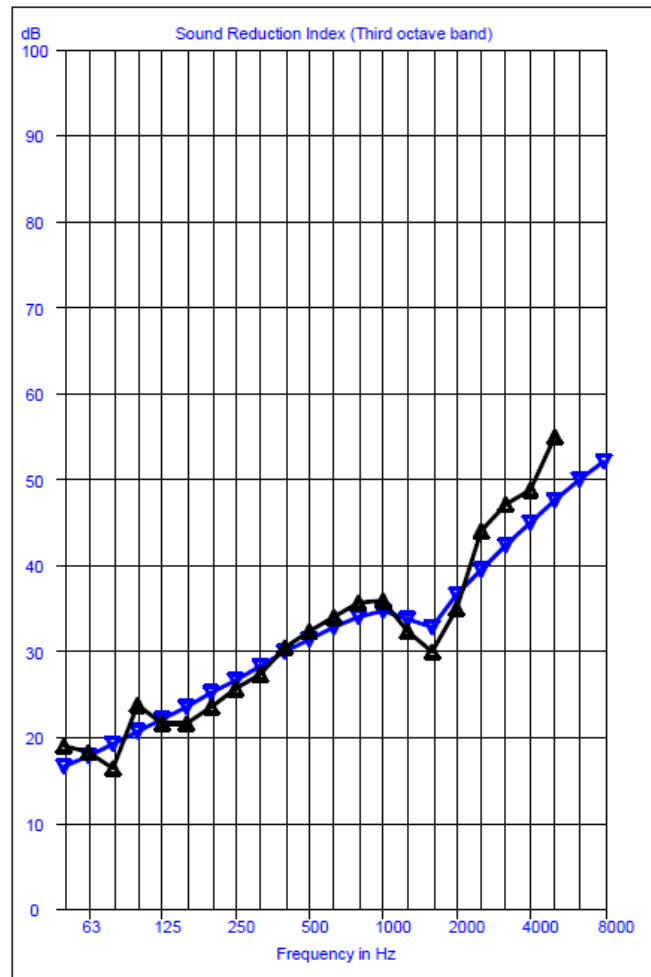
Comparable results
(stonewool slightly better)

Thickness (50-100-120)



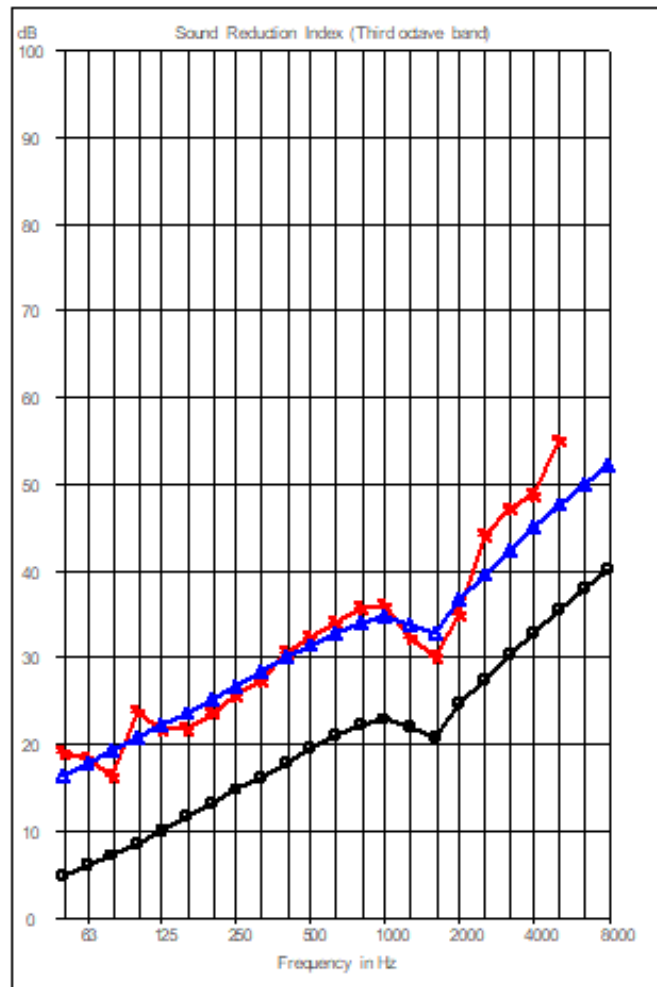
From 50 to 100 biggest gain

Simulation Metfiber



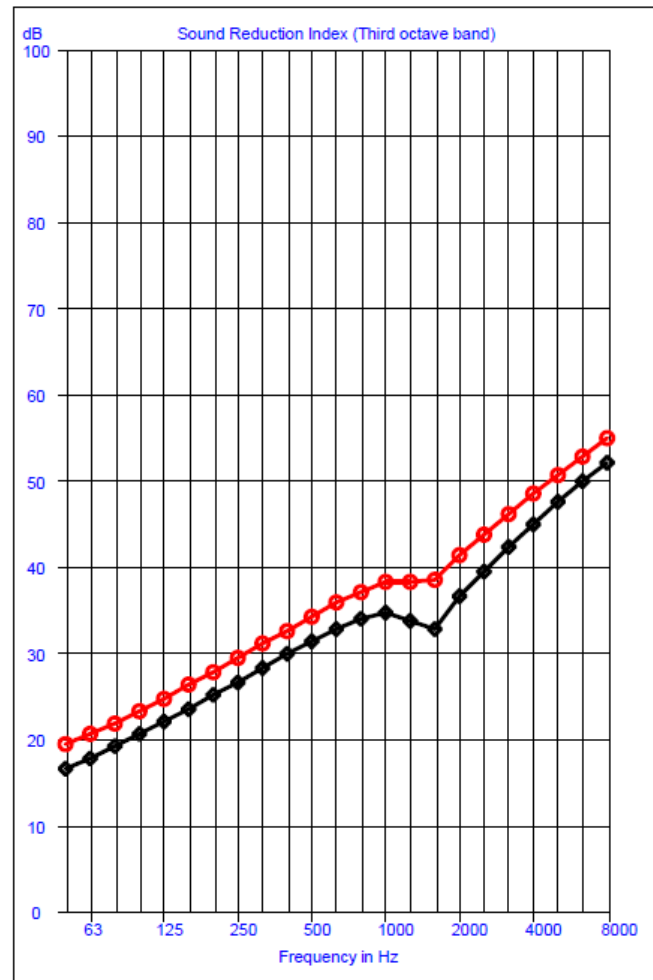
Stiff software

Simulation steel



Mineral wool acts as
extra mass (orientation
fibers)

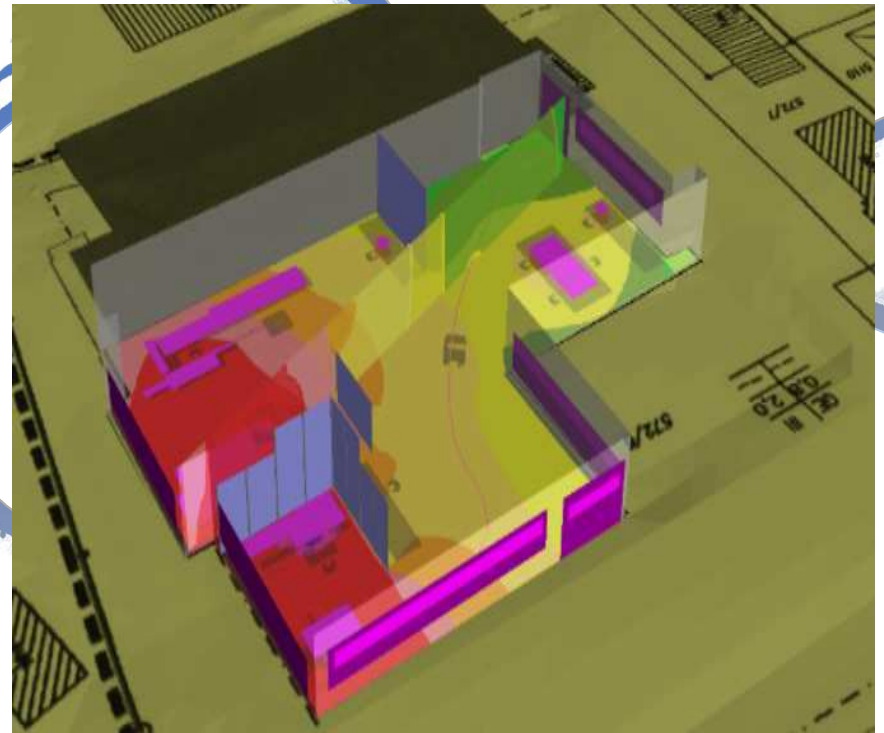
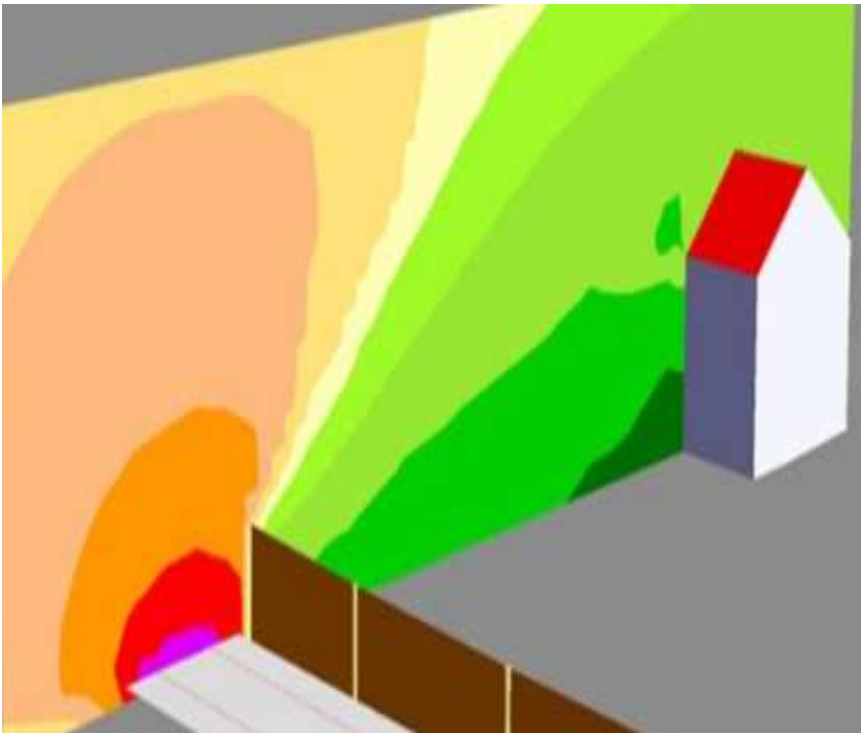
Simulation Metfiber



Simulation extra steel

Performance in application

- Soundplan
- Indoor and outdoor
- Auralisation





Our meTecno values

† We help to create a better acoustic environment

- † Acoustic knowledge
- † Acoustic reports available
- † Quality and certification
- † Wide product range
- † We make acoustics understandable

† www.metec-no-sound.de

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