



**MICRO
PERFORATED
PLATE
ACOUSTIC
PANEL**



www.microacoustics.in

MICRO PERFORATED PLATE

The Micro perforated Plate is reclaimable, environmental friendly non-combustible and it can be used in open area without compromising the acoustical properly.

Micro Perforated Plate is an innovative way of sound absorbing material. Since the panels are made out of 1mm thick Aluminium alloy and hence, can be used in high temperature and Fire resistance application.

Micro Perforated Plate uses in Duct silencers, Engine Cooler fans Silencer, compressor noise attenuators.

We at Micro Acoustics pride ourselves on delivering customized solution that address the specific challenges and requirements of our clients with a focus on innovation and experience, we offer a range of solutions designed to empower businessmen and individuals alike.

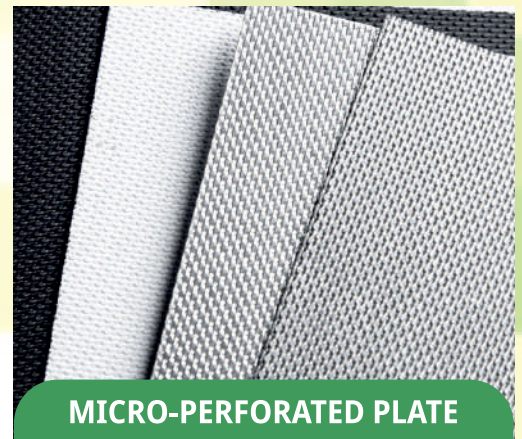
Micro acoustics specialized in sound proofing of systems and components in challenging environments with high demands on fire safety, resistance to water and environmental impact.

WHY CHOOSE MICRO-PERFORATED ACOUSTIC PANELS?

Micro-Perforated plate Acoustic Panel is a revolutionary sound-absorptive metal material on the basis of MPP (micro-perforated panels) theory of acoustics applied with our peculiar manufacturing process to create an innovative sound absorber with ultra- micro perforation of less than 0.04mm. Our own tech output 300,000 subtle holes of 0.04mm(H) per square meter area. With ample perforations, it can absorb sound energy to be transferred into heat energy.

In addition, create a silky and delicate surface visual effect that aesthetically blends with decorative materials which goes beyond traditional metal perforated panel's presenting. This prominent sound absorption performance builds amplitude of acoustical performance which can be easily extended by simply increasing the depth of the backing void. The deeper the air-void the better the sound absorption at low frequencies! Micro-Hole Acoustic Panel benefits include prevent dangers from traditional sound-reduction backing textile which may get damped, bacterial-adhered, dust fall. Namely, Micro-Hole Acoustic's sound reduction efficacy will never decline through years nor cause any health concerns. In addition, Micro- Hole Acoustic Panel is easy for maintenance to clean with water or cloth only. Micro- Hole Acoustic Panel can be widely used for noise control purpose indoors or outdoors (e.g. noise barrier)

- ➔ High Sound Absorption
- ➔ NRC:0.70 to 0.95
- ➔ Clean Surface
- ➔ Monolithic Flat Plane
- ➔ Water Resistant
- ➔ Mould Resistant
- ➔ Dust Proof
- ➔ Non Combustible
- ➔ Non Asbestos
- ➔ Environmental Friendly
- ➔ Lightweight
- ➔ Durable
- ➔ Versatile
- ➔ Prolonged Performance



- ✓ WASHABLE
- ✓ NO BACK ABSORBENT FIBER

BENEFITS AT A GLANCE

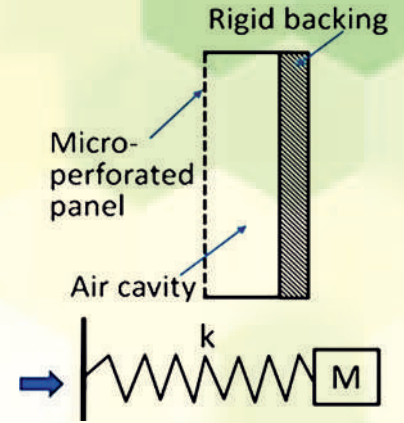


MICRO PERFORATED PANELS – CONCEPT & INNOVATION

Micro perforated panels (MPPs) are advanced sound absorbers with **sub-millimeter** perforations that trap and dissipate sound waves.

Inspired by Ma Dayou's Theory: MPPs use transfer impedance principles for superior sound absorption.

Advanced & Durable: With sub-millimeter perforations, they offer high efficiency, low maintenance, and aesthetic appeal.



MASS SPRING MODEL

KEY APPLICATIONS IN MEP & INDUSTRIAL ACOUSTICS

Micro Acoustics integrates MPP solutions into MEP and industrial systems for effective noise control without affecting performance.

HVAC & Ventilation:

Cross-talk silencers, AHUs, cooling towers, and chillers.

Mechanical Equipment:

Enclosures for pumps, generators, compressors, and boiler rooms.

Architectural Acoustics:

Ceiling panels, noise barriers, and decorative acoustic solutions.



END CAP FOR VENTILATION FANS



CHILLER ENCLOSURE

WHY CHOOSE MICROPERFORATED PANELS OVER TRADITIONAL MATERIALS?

FEATURE	MICROPERFORATED PANELS (MPPS)	TRADITIONAL MATERIALS : FIBROUS MATERIALS
Sound Absorption	Superior across a wide frequency range	Less efficient, especially in lower frequencies
Customization	Highly customizable (perforation size, design)	Limited customization, often fixed designs
Aesthetic Appeal	Sleek, modern, blends seamlessly into design	Bulkier and more industrial in appearance
Durability	Long-lasting, resistant to dust, moisture & wear	Can degrade or require frequent maintenance
Eco-Friendliness	Made without fiberglass, more sustainable	Often made with fiberglass, less eco-friendly
Health & Safety	Free from harmful materials like fiberglass dust	Can release harmful dust, posing health risks



BAFFLE CEILING



DG ENCLOSURE

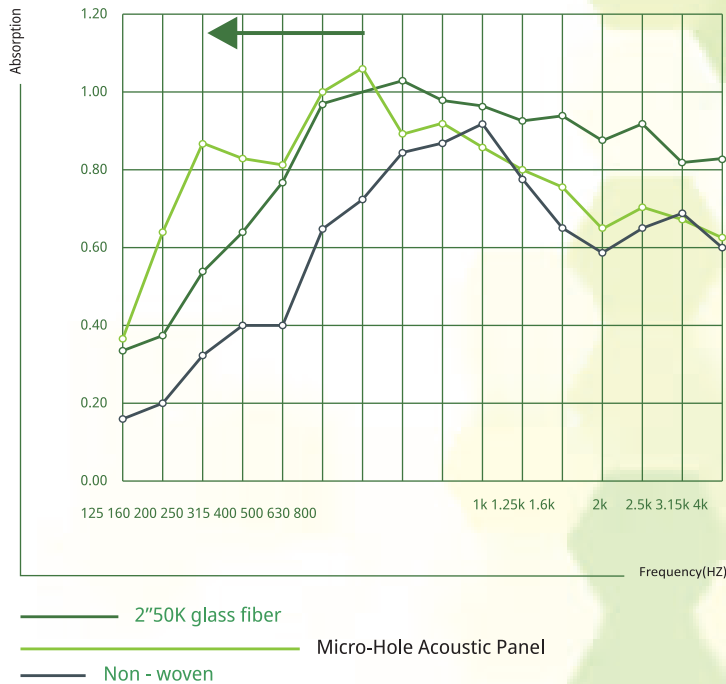
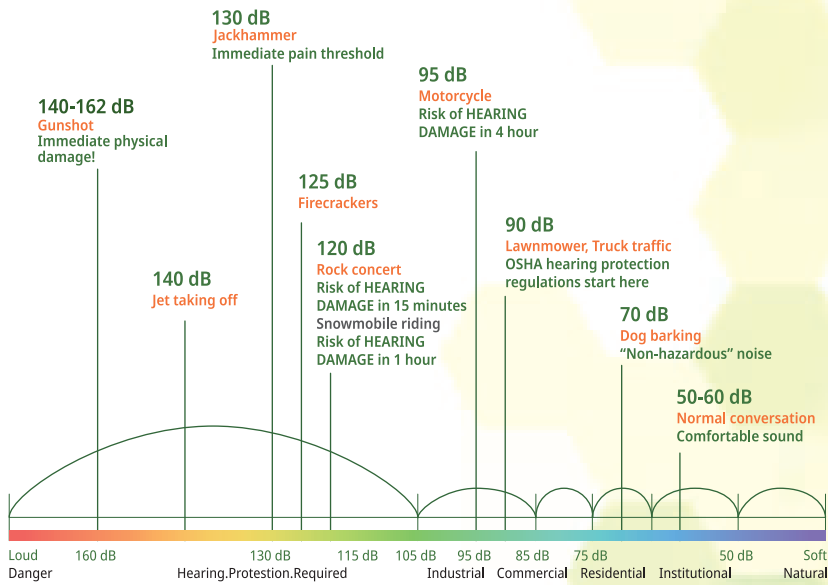


PLANT ROOM ACOUSTICS

NRC COMPARISON BETWEEN DIFFERENT MATERIALS

Category	Material	NRC
Porosity	Mineral wool, rock wool sponge, mineral wool linen fabrics and cotton	0.4~0.9
Perforated Panel	Perforated Gypsum Panel, Perforated Plywood, Perforated Aluminum Panel, Perforated Steel Panel	0.5~0.7
Panel	Plywood, Gypsum Panel, Plastic Panel Steel Panel	0.2~0.4
Micro-Hole Acoustic Panel		0.7~0.9

NOISE LEVELS



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