

Why Choose SoundMicro?

SoundMicro is a revolutionary sound-absorptive metal material on the basis of MPP (micro-perforated panels) theory of acoustics applied with CKM's peculiar manufacturing process to create an innovative sound absorber with ultra-micro perforation of less than 0.04mm (H) x 0.4mm(L). CKM's own "Smart Perf" 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!

SoundMicro benefits include prevent dangers from traditional sound-reduction backing textile which may get damped, bacterial-adhered, dust fall. Namely, SoundMicro's sound reduction efficacy will never decline through years nor cause any health concerns. In addition, SoundMicro is easy for maintenance to clean with water or cloth only. SoundMicro can be widely used for noise control purpose indoors or outdoors (e.g. noise barrier)

- High Sound Absorption
- NRC:0.70
- 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



Environmentally Friendly



Water-Resistant



Non-Combustible



NRC:0.70



Prolonged Performance



High Sound Absorption



Light-Weight



Dust Proof



Clean Surface



Monolithic Flat Plane



Versatile



Durable

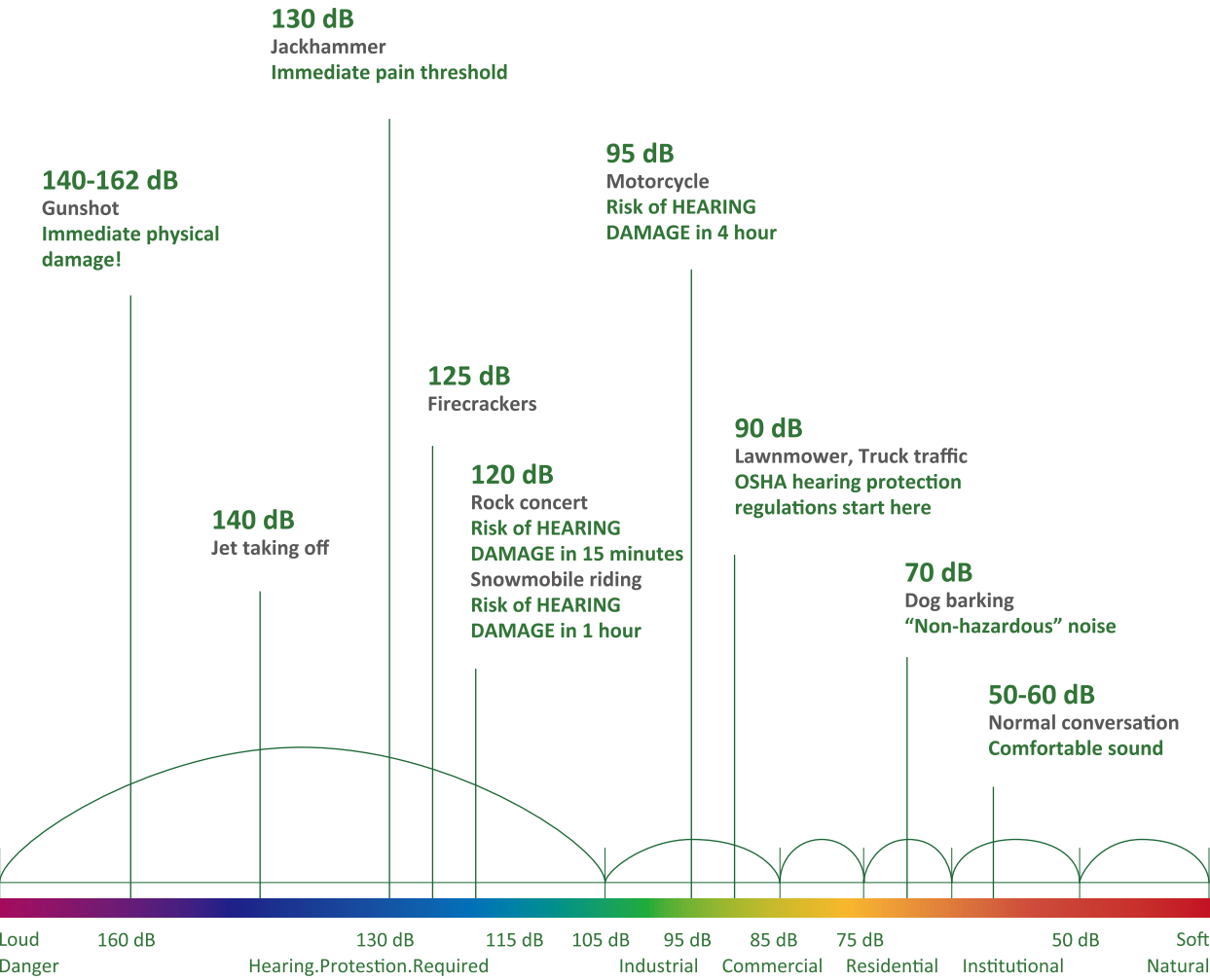


Mould-Resistant



Non-Asbestos

Noise Levels

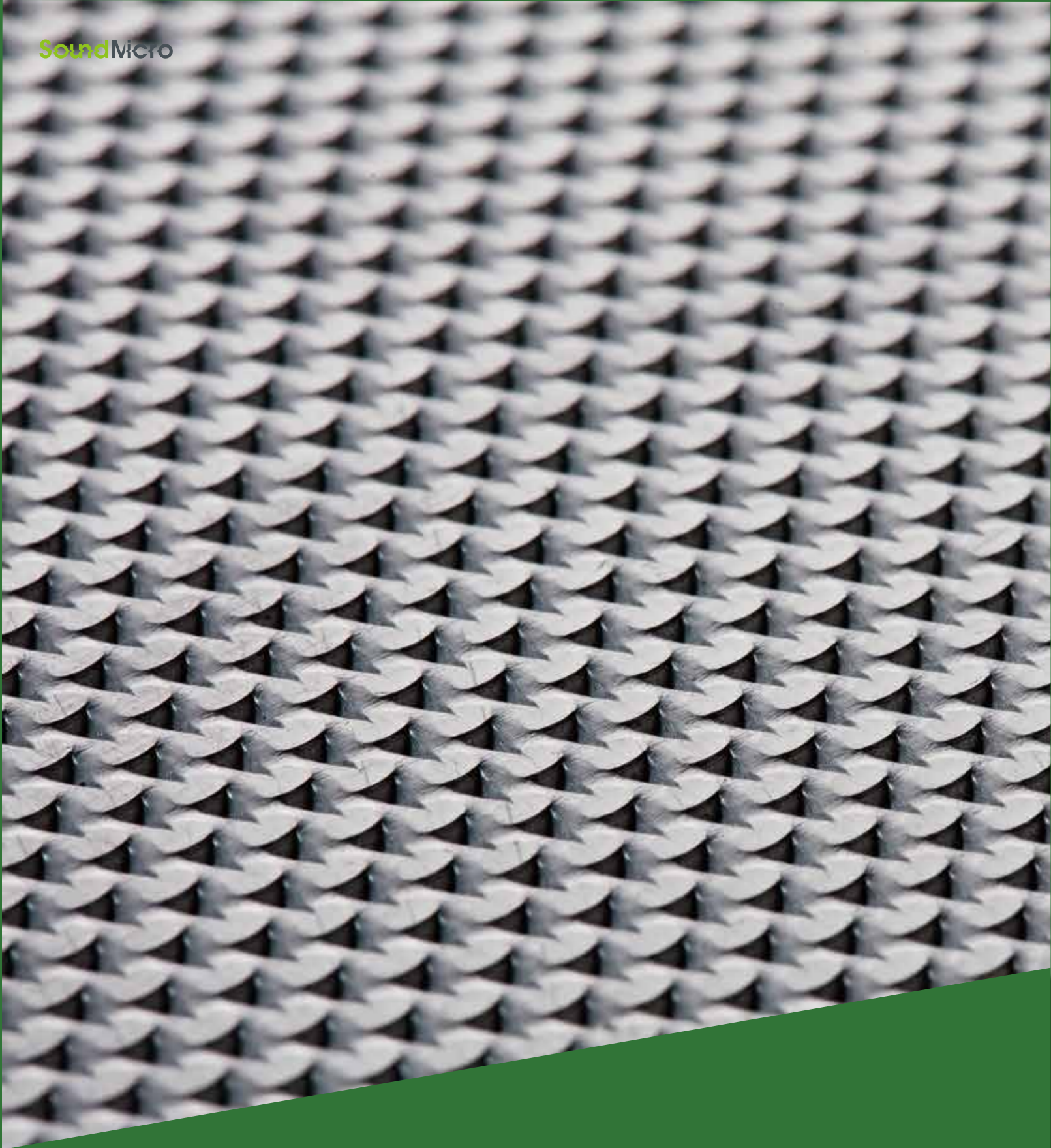


Color Range

Dark Brown R08-10	Beige White W07-25	Ivory White W04-07	Pearl Yellow Y13-07	W07+01	W07+08	W07+24
Black B01-20	Cloud Grey B05-19	Aqua Green G03-05	Sky Blue C05-08	R08+01	R08+08	R08+24

Remarks:

1. The colors above are for reference only.
2. SoundMicro range is available for a variety of applications.



Material:
Recyclable Aluminum “SoundMicro” metal fabric
High acoustical absorptive material
No additional soft fiber insulation material required

Surface Material:
Tortuous surface material

Application:
For all general ceiling, wall types, noise barriers, etc.

Size:
700(W) x 2,400 mm (L)

Thickness:
1.0mm

Perforation Dimension:
0.04mm (hole height)

NRC Value:
0.7~0.95 based on various applications and designs

Finish:
PE or PTFE (outdoor) per standard colors



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
SoundMicro Panel		0.7~0.9



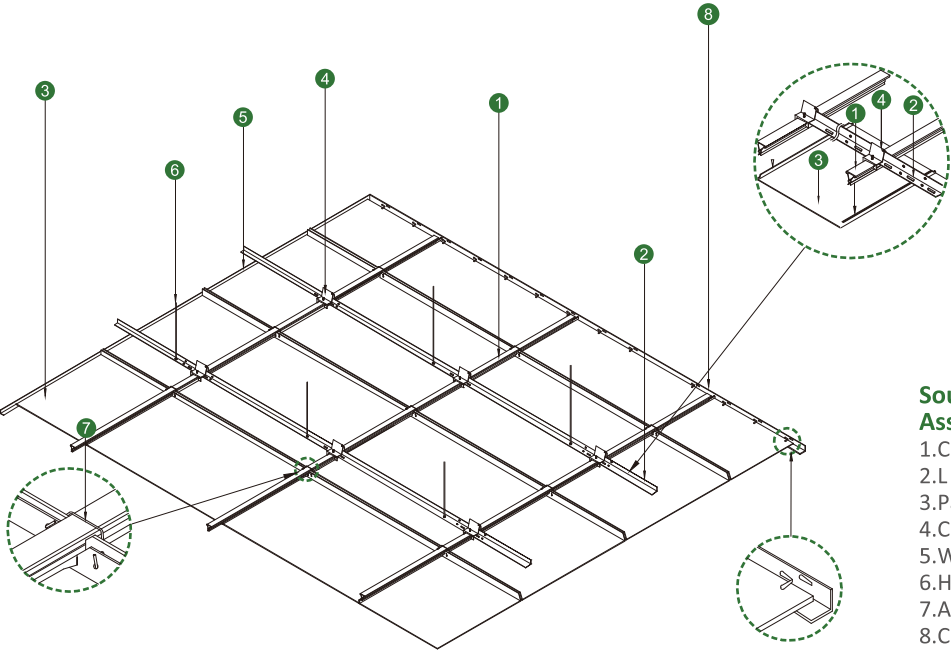
SoundMicro Acoustical Materials



Ceiling Panel

SoundMicro Metal Ceiling Panel with 300,000 ultra-micro perforation holes per square meter which are barely visible creates a silky appearance breaking away from stereotype for traditional metal perforated panels. Possessing with water and dust resistant and no backing textile properties, SM can be extensively applied even to high temperature and humidity circumstance without losing NRC performance throughout its product life cycle. It is modularly made in 600mm (W) x 600mm (L) and 600mm (W) x 1200mm (L) including lay-in or clip-in or hook-on system.

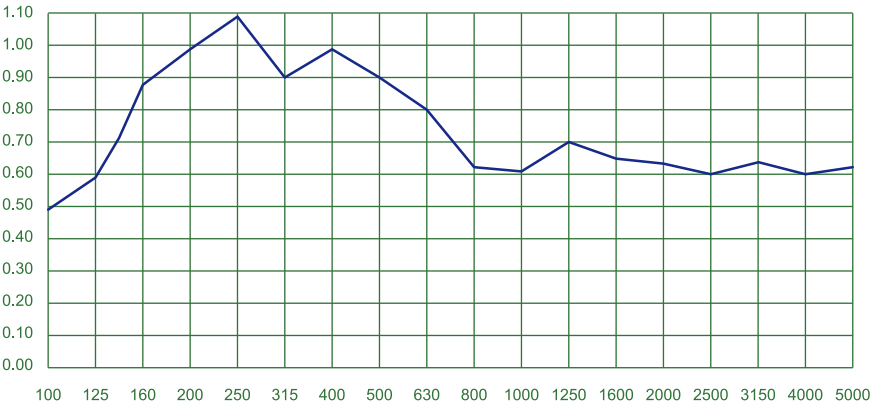
Material:Aluminum “SoundMicro” metal fabric
Surface Appearance:Plain, Flat Monolithic
System:Clip-in / Lay-in / Hook-on
Panel Size:
Clip-in: 600 x600mm, 600 x 1200mm, 300 x 1200mm
Lay-in: 600 x600mm, 600 x 1200mm, 300 x 1200mm
(Imperial size is available)
Hook-on: 600 x600mm, 600 x 1200mm, 300 x1200mm
(Other custom shapes & sizes available upon request)
Thickness:1.0mm
NRC Value:0.70
Finish:PE or PTFE (outdoor) per standard colors
(Other colors are available upon request)



SoundMicro Clip-in Ceiling Tiles Assembly Drawing
1.Clamping Rail
2.L Bar
3.Panel
4.Clip
5.Wall Angle
6.Hanger
7.Anti-seismic Fix Clip(For Outdoor Use)
8.Clip Wall Angle

Sound Absorption Performance

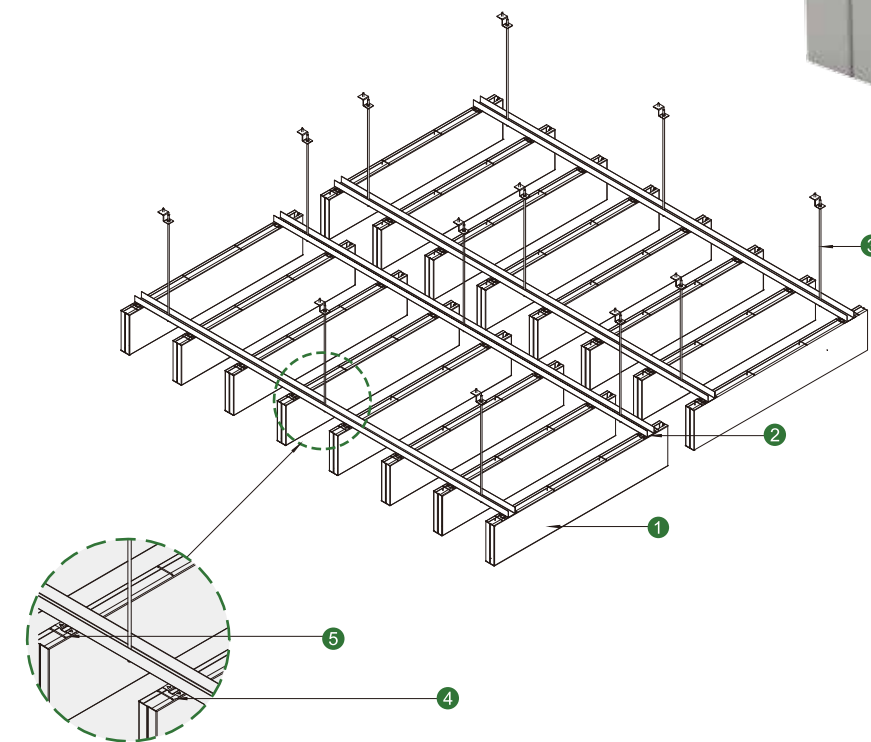
Below graph extracted from Intertek Test Report No.130621001SHJ-BP-15
(in accordance with EN13964:2004+A1:2006)



Measured values
Sound absorption coefficient, α_s
1/3 Octave Frequency (Hz)



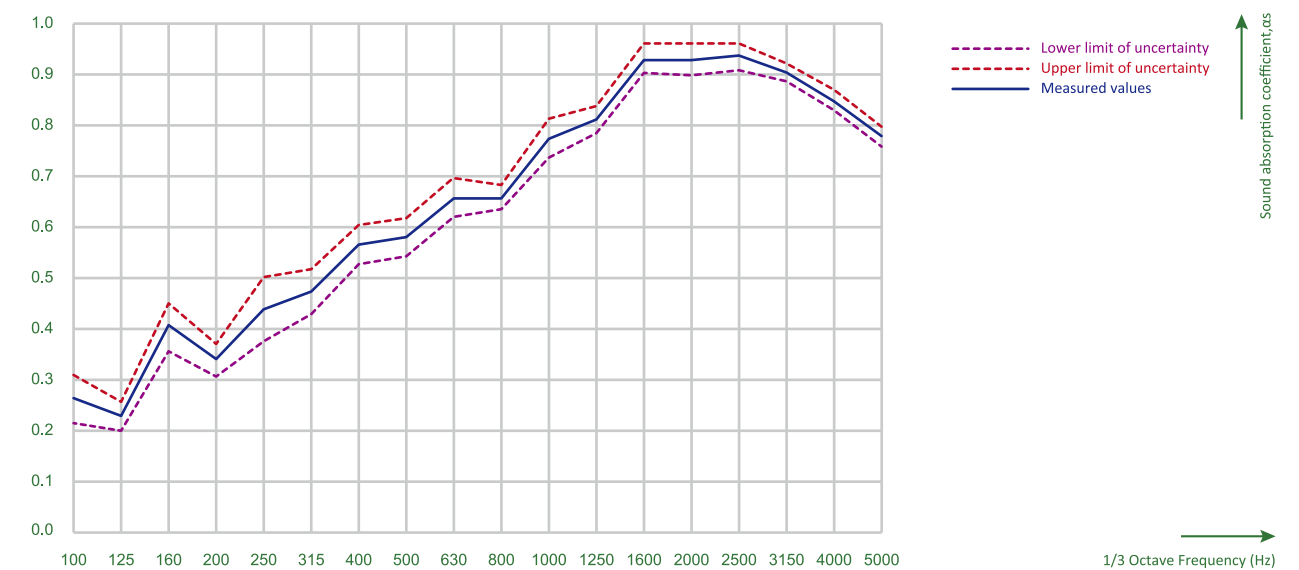
Material:Aluminum “SoundMicro” metal fabric
Size:W30(~50)mm x H100(~280)mm x L600(~2400)mm
Pitch:300mm O.C or upon design request
Thickness:1.0mm
NRC Value:0.7
Finish:PE or PTFE (outdoor) per standard colors
 (Other colors are available upon request)



SoundMicro Baffle Assembly Drawing
 1.SoundMicro Baffle
 2.Prepainted U Channel
 3.1/4" (6mm) Hanger
 4.Hanger Plate
 5.Fix Clip

Sound Absorption Performance

Below graph extracted from TÜV SÜD PSB Test Report No.:719166181-MEC-01B-EMK
 (in accordance with ASTM C423-02a)



Baffle

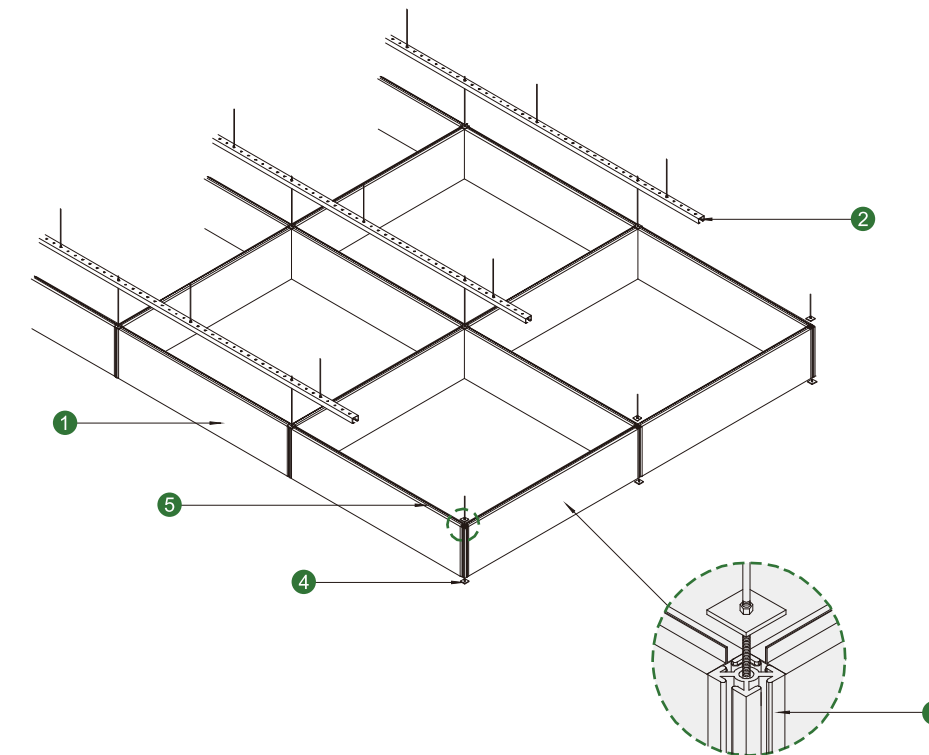
SoundMicro Baffle is a quite peculiar and diversified system. With its open linear ceiling design, the system is flexible in layout and can be combined with luminaries and air conditioning. Easy for equipment maintenance which is different from traditional closed ceilings.



Cell Ceiling

Open Cell Ceiling is a flexible application which is a sound absorber assembled by 600mm (W) x 600mm (L) baffle units. This open ceiling system is flexible in layout and can be combined with luminaries and air conditioning. Easy for equipment maintenance which is different from traditional closed ceilings.

Material: Aluminum "SoundMicro" metal fabric
Size: W30(~50)mm x H100(~280)mm x L600(~2400)mm
Thickness: 1.0mm
NRC Value: 0.7
Finish: PE or PTFE (outdoor) per standard colors
 (Others colors are available upon request)

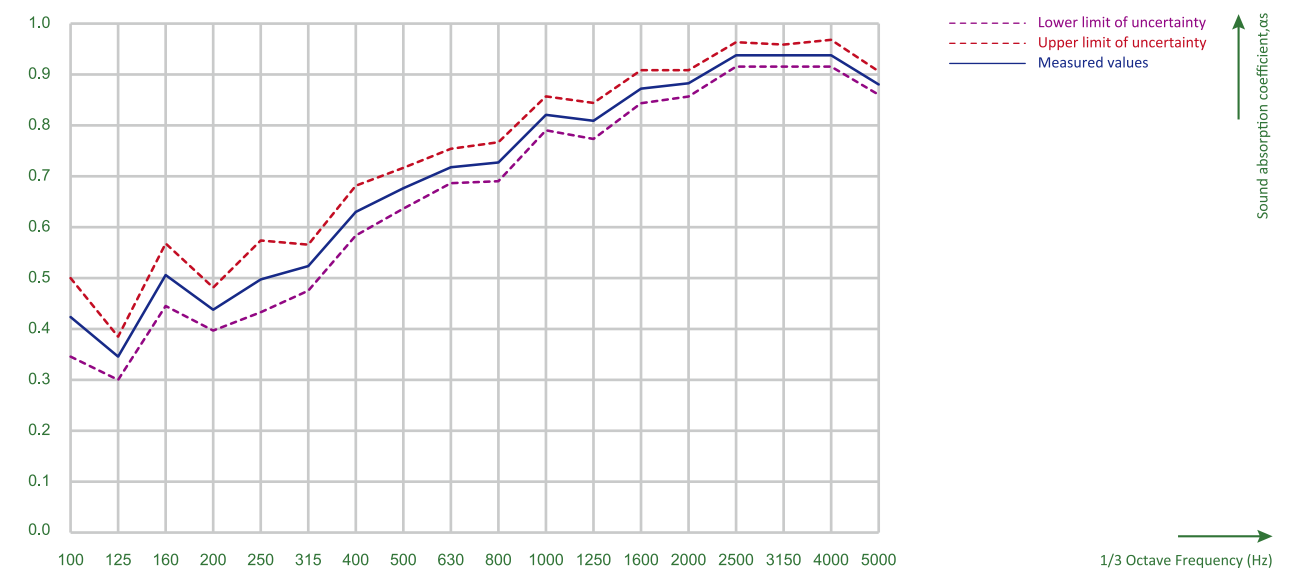


SoundMicro Cell Ceiling Assembly Details

1. SoundMicro Baffle
2. Prepainted U Channel
3. Connect Bar
4. Capping
5. Fix Clip

Sound Absorption Performance

Below graph extracted from TÜV SÜD PSB Test Report No.: 719166181-MEC-02B-EMK
 (in accordance with ASTM C423-02a)



Indoor Sound-Absorptive Wall

SoundMicro Material has outstanding sound-absorptive performance which can not only apply to ceilings but also to indoor walls. SoundMicro wall panel combines paper / Aluminum honeycomb on the back greatly reinforce its impact resistance capability and maintain superior sound absorption effect. It expands application range for SoundMicro!

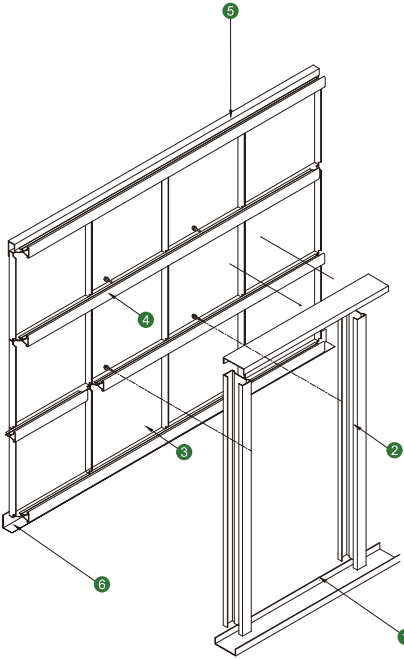
Material:Aluminum “SoundMicro” metal fabric
Surface Appearance:Plain, Flat Monolithic
System:Clip-in / flat Sheet
Maximum Size:680 (W) x 2400mm (L)(Nominal)
Thickness:1.0mm
Panel Size:Clip-in:300 x 600mm, 300 x 1200mm, 600 x 600mm
NRC Value:0.70
Finish:PE or PTFE (outdoor) per standard colors
(Others colors are available upon request)

Clip In Wall

- 1.U Track
- 2.C-stud
- 3.Soundmicro Panel
- 4.Clamping Rail
- 5.7 Type Wall Angle
- 6.Skirting



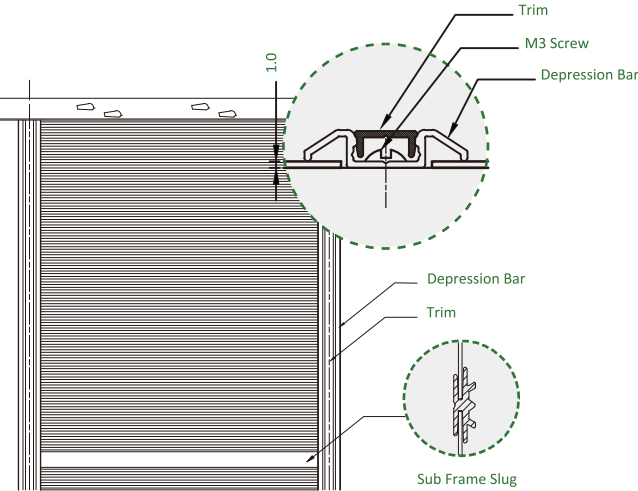
Turn Panel



Clamping Rail Is Fixed On the C-stud

Panel : 300x600mm, 300x1200mm, 600x600mm
Accessories: Clamping Rail, C Stud, U Track, Skirting, 7 type Wall angle

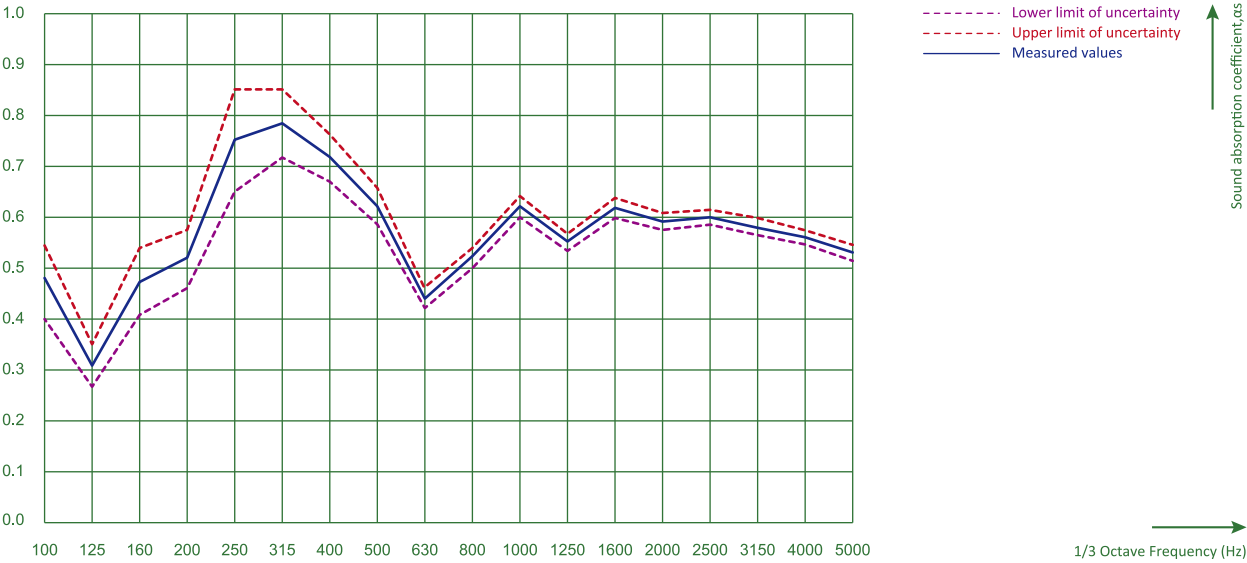
Flat Wall



Panel : 680x2400mm (Custom made)
Accessories: Push-in Bar, Trim, Angles, Sub Frame

Sound Absorption Performance

Below graph extracted from TÜV SÜD PSB Test Report No.:719166181-MEC-03B-EMK
(in accordance with ASTM C423-02a)

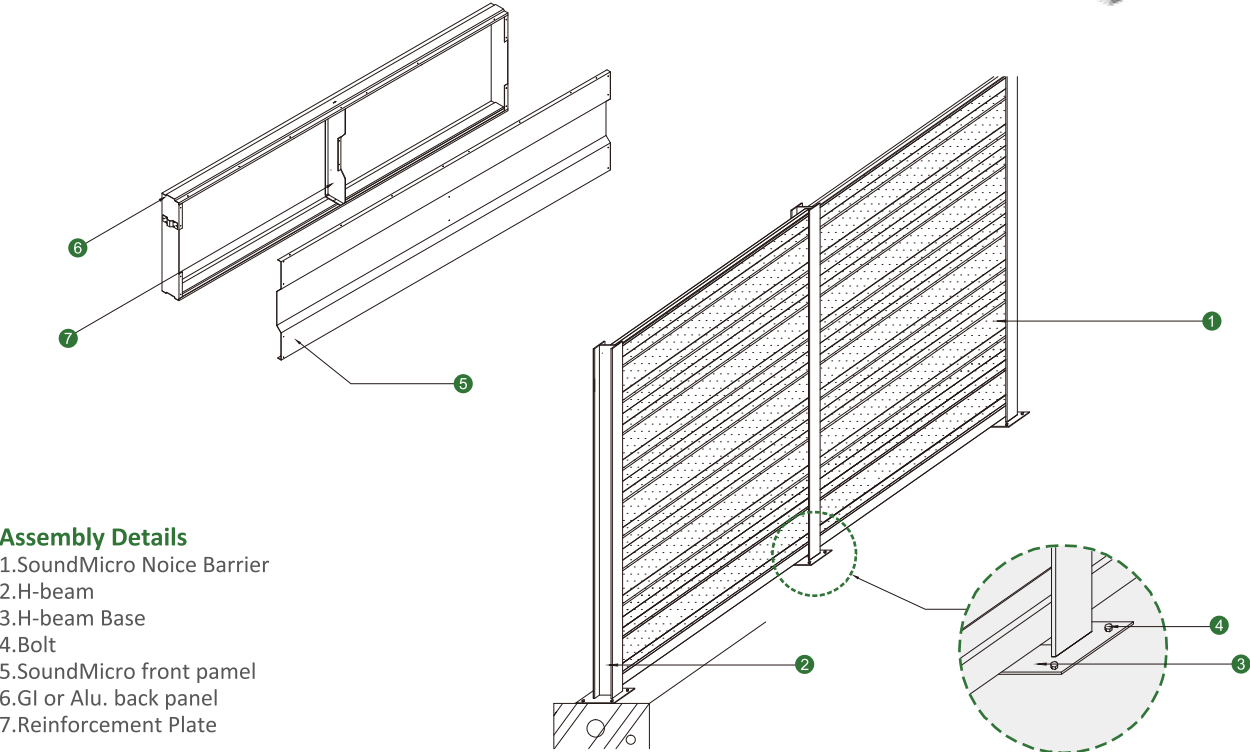




Outdoor Noise Barrier

SoundMicro Material with predominant sound absorption function can apply to diverse indoor spaces as well as outdoor acoustical barriers to block outdoor noises; for example, traffic noises, construction sites noises or factory noises. With unique feature of no acoustical fiber backing, SoundMicro noise barrier would not attenuate sound-absorption / insulation result under wet weather and circumstances. For traditional perforated noise barrier, its sound reduction efficacy will greatly fall down after its acoustical fiber backing get damped. Simultaneously, acoustical fiber will sink down due to the dampness, which may cause permanent sound-absorptive function decay. SoundMicro Noise Barrier with 1.55mm thickness steel plate can achieve noise reduction up to 35dB or more.

Material:Aluminum “SoundMicro” metal fabric front + Galvanized steel back
Size: 500mm W x 2000(~3000)mm L x 100(200)mm E
Thickness: Front: 1.0mm SoundMicro Panel;
Back: 1.5mm Galvanized Steel or 1.2mm Aluminum
NRC:0.8~0.95 (by different designs)
STC:35 dB
Finish:PTFE (outdoor) per standard colors
(Other colors are available upon request)



- Assembly Details**
- 1.SoundMicro Noise Barrier
 - 2.H-beam
 - 3.H-beam Base
 - 4.Bolt
 - 5.SoundMicro front pamel
 - 6.GI or Alu. back panel
 - 7.Reinforcement Plate

Sound Absorption Performance

Below graph extracted from TAF Testing Laboratory 2406 Report.

