



# ACOUSTICA

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#### **ADVANTAGES**



1) Effective noise reduction Sound-absorbing felt mitigates noise and reduced unwanted reverberations.



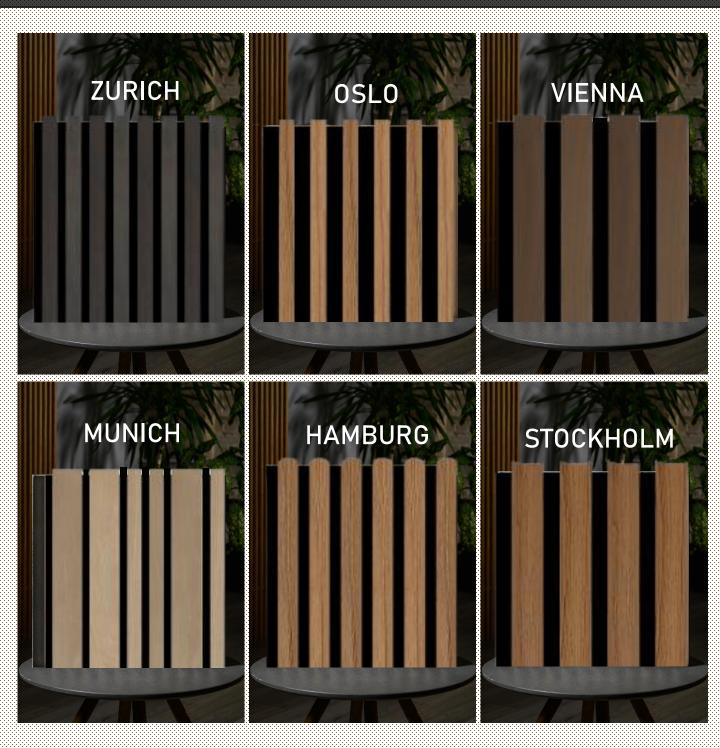
2) Rich in color and shape Versatile woodgrain colors and finishes that appeal to any style of home or office.



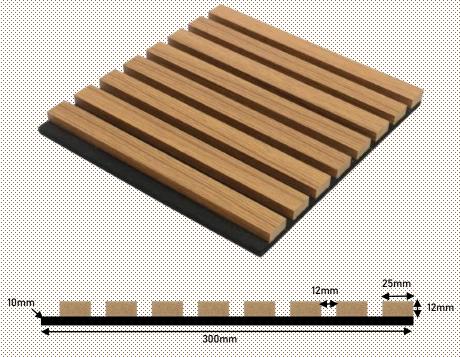
Flame retardant
 The black acoustic felt can achieve B1 grade flame retardancy.



4) Customization
Designer can play with the colour of PET board and can vary distance between the slats.







## ZURICH

Total Size

2400mm x 300mm x 22mm

Weight

8.8kg

No. of Slats

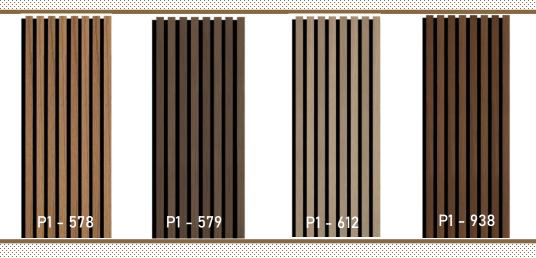
8 pcs

Size of MDF Slat

25x12mm

Distance between MDF Slat

12<sub>mm</sub>







10mm 23mm 12mm.

#### OSLO

Total Size

2400mm x 300mm x 22mm

Weight

No. of Slats

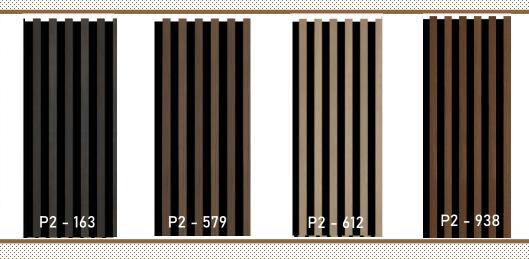
8.8kg

Size of MDF Slat

6 pcs

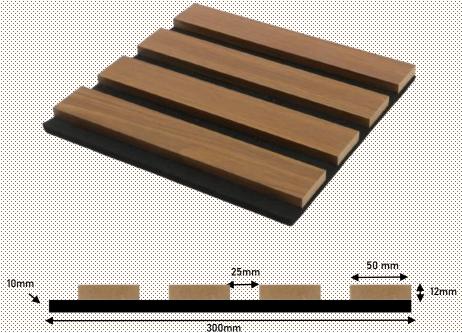
25x12mm

Distance between MDF Slat









#### VIENNA

Total Size

2400mm x 300mm x 22mm

Weight

8.8kg

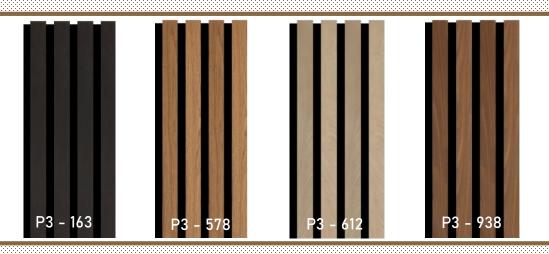
No. of Slats

4 pcs

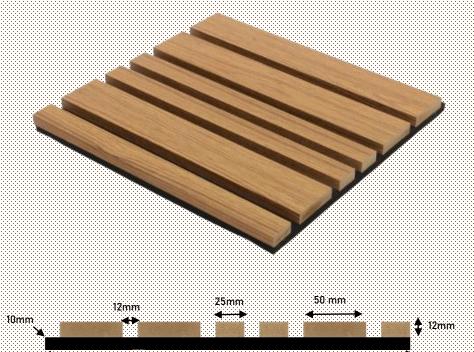
Size of MDF Slat

50x12mm

Distance between MDF Slat







## MUNICH

300mm

Total Size

2400mm x 300mm x 22mm

Weight

8.8kg

No. of Slats

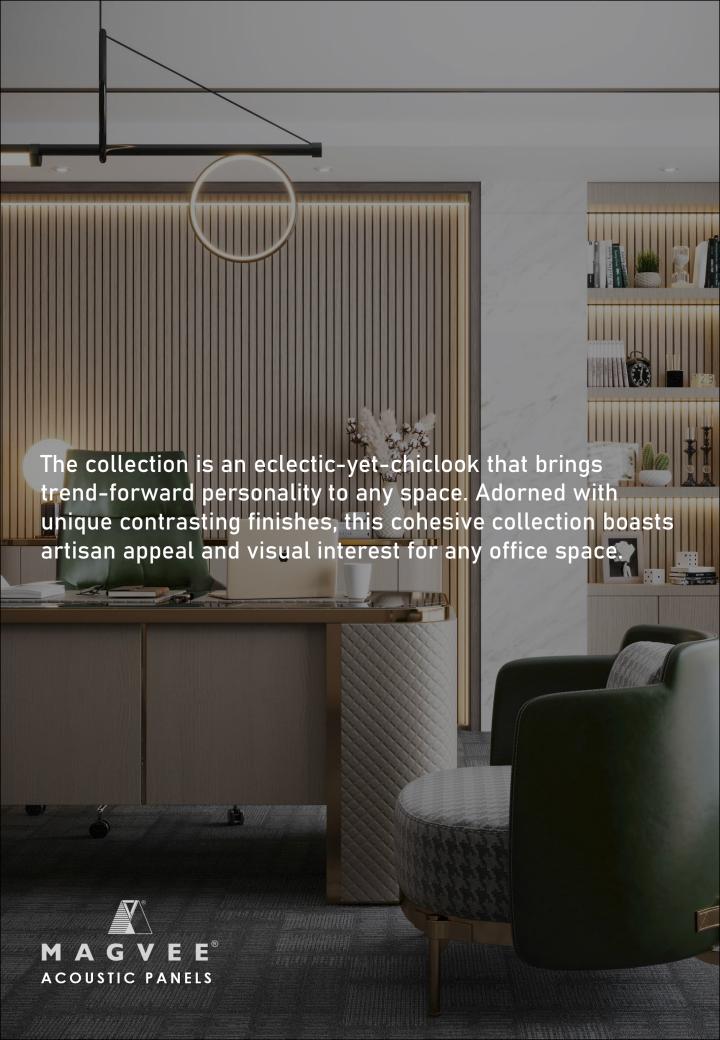
6 pcs

50x12mm | 25x12mm

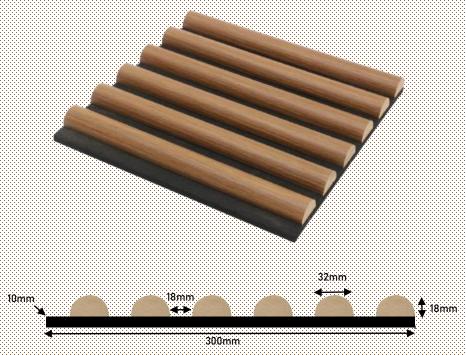
Size of MDF Slat

Distance between MDF Slat









#### HAMBURG

**Total Size** 

2400mm x 300mm x 28mm

Weight

No. of Slats

6 pcs

8.8kg

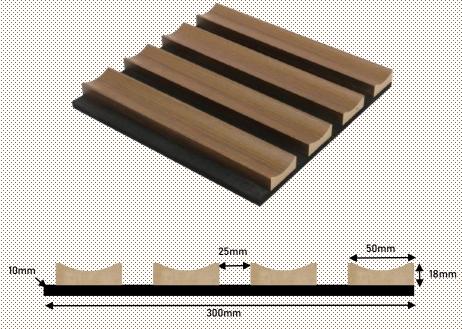
Size of MDF Slat

32x18mm

Distance between MDF Slat







#### STOCKHOLM

Total Size

2400mm x 300mm x 28mm

Weight

8.8kg

No. of Slats

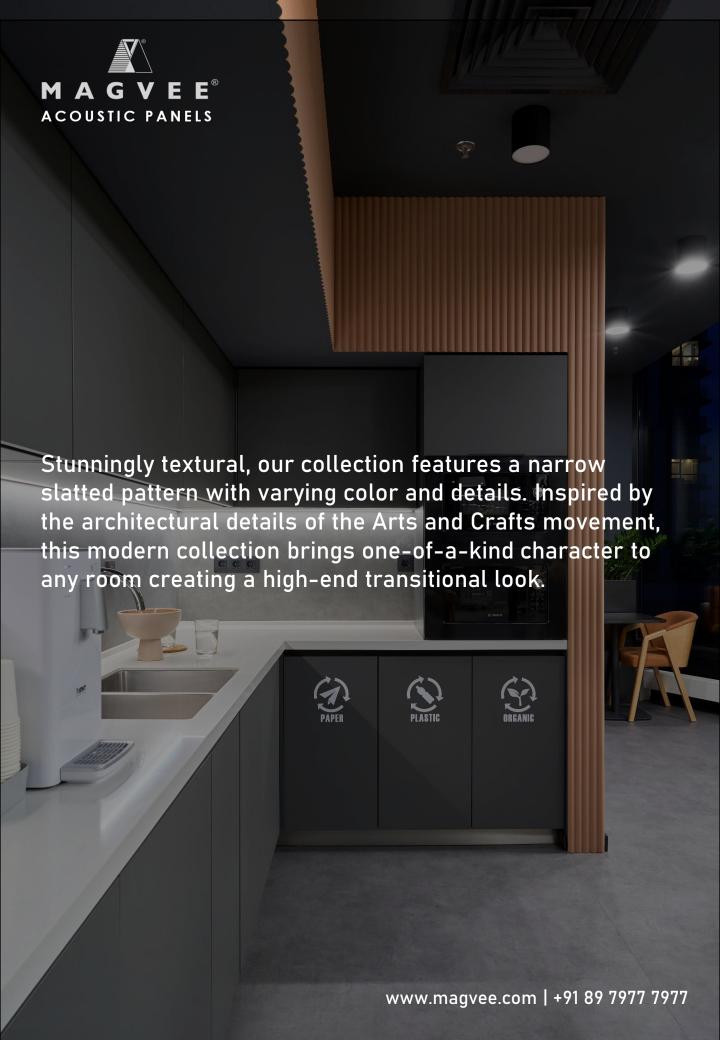
4 pcs

Size of MDF Slat

Distance between MDF Slat

50mm x 18mm







The Automotive Research Association of India

CONFIDENTIAL

TEST REPORT ON MEASUREMENT OF RANDOM INCIDENCE SOUND ABSORPTION COEFFICIENT OF MAGVEE ACOUSTICA MOF PANEL

ULR-TC508522050000032F NVH/3100012272/2021-22/0032

3rd March 2022

CUSTOMER NAME

MAG VENEER MAG VENEER

32k, Shree Laxmi Vijay Industrial, Premises
Coop Society Ltd, New Link Road
Andheri West, Mumbai – 400 053, Maharashtra

Test component details given by customer are as

LETTER REF.

E-mail dated 18th February 2022

TEST COMPONENT DETAILS

MAGVEE Acoustica 2440 mm X 300 mm x 21 mm

Size of one board Layer 1

total 8 boards used for mounting MDF Panel Medium Density Fibreboard

Base Material Top Layer Density and Thickness Size and Pitch

Textured PVC Membrane 760 kg/m³ (+/- 5%) and 12 mm 2440mm (Length) X 25mm (Width) and

25 mm Pitch (gap between two MDF strip)
Acoustic Board
100% Polyester fibre. (60% recycled content from PET plastic Bottles)

Density and Thickness

1650 GSM (+/- 5%) and 9 mm Rockwool of 60 kg/m³ density and 50 mm thick

Measurement of random incidence sound absorption coefficient on above mentioned test sample as per ASTM C-423 / ISO 354 in reverberation chamber.

TEST PROCEDURE

The random incidence sound absorption coefficient measurement was carried out on above mentioned test sample as per ASTM C-423 / ISO 354 in reverberation chamber. The test sample of size 2.440 m × 2.440 m was mounted on the floor with type E-50 mounting (50mm air gap filled with 50 mm roccwool). Please refer figure 1 for test set up and mounting of system. The measurement was carried out at temperature 25°C ±1°C, humidity 54% and barometric pressure 936 mbar

3rd March 2023

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ULR-TC508522050000032F NVH/3100012272/2021-22/0032

6.0 DATE OF EVALUATION

The Random incidence sound absorption coefficient measurement was carried out on above mentioned test sample on  $3^{rd}$  March 2022.

INSTRUMENTATION

| Sr.<br>No. | Instrument Name                          | Type / Model No                          | Make                      | Calibrated                | Calibration due on                 |
|------------|--|--|---------------------------|---------------------------|------------------------------------|
| 1          | Multi-channel Data<br>Acquisition System | 3560 D                                   | Bruel & Kjaer,<br>Denmark | 3-Aug-21                  | 3-Aug-22                           |
| 2          | ½' Random Incidence<br>Microphone        | 378C20                                   | PCB, USA                  | 3-Aug-21                  | 3-Aug-22                           |
| 3          | Power Amplifier                          | 2716                                     | Bruel & Kjaer,<br>Denmark | Does not require separate |                                    |
| 4          | Omni directional sound<br>source         | Omni power 4296                          | Bruel & Kjaer,<br>Denmark |                           | as it is driven<br>iisition system |
| 5          | Reverberation<br>Chambers                | 80 m <sup>3</sup> and 110 m <sup>3</sup> | -                         | -                         |                                    |

TEST RESULTS

Table 1 and figure 2 shows the average values and plot for random incidence sound absorption coefficient of MAGVEE Acoustica panel consist of Medium Density Fibreboard panel with Textured PVC Membrane of 760 kg/m² density, 12 mm thickness, 25 mm width X 2440 mm length and 25 mm pitch + 100% Polyester fibre Acoustic Board of 1650 GSM and 9 mm thickness along with 50 mm air gap filled with rockwool of 60 kg/m² density and 50 mm thickness in the frequency range of 100 Hz to 5000 Hz.

9.0

The Noise Reduction Coefficient (NRC) is given by the average value of sound absorption coefficient at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz is calculated as per ASTM C- 423. The weighted sound absorption coefficient (o<sub>w</sub>) and sound absorption class are calculated as per ISO 11654 are given below.

s per ISO 11654 are given below.

MAGVEE Acoustics panel consist of Medium Density Fibreboard panel with Textured PVC

Membrane of 760 kg/m² density, 12 mm thickness, 25 mm width X 2460 mm length and 25

mm pitch + 1009% Polystes fribe Acoustic Board of 1550 GSM and 9 mm thickness along

with 50 mm air gap filled with rockwool of 80 kg/m² density and 50 mm thickness along

with 50 mm air gap filled with rockwool of 80 kg/m² density and 50 mm thickness

Noss Reduction Coefficient (NIC)

Weighted bound absorption coefficient a<sub>w</sub>

Class Coefficient Coefficient (NIC) Weighted sound absorption coeff Sound Absorption Class

Prepared By:

S.K. Jain

Sh Dr. N. H. Walke

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ARAI

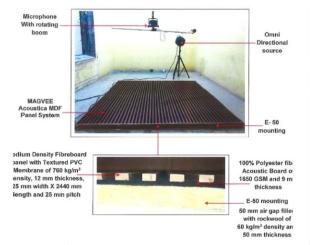
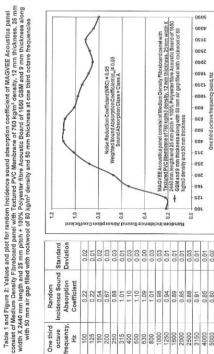


Figure 1: Test set up for mounting and testing of MAGVEE Acoustica MDF Panel System in

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#### ARAI



| One third<br>octave<br>requency,<br>Hz | Random<br>Incidence Sound<br>Absorption<br>Coefficient | Standard<br>Deviation |
|--|--|-----------------------|
| 100                                    | 0.22   | 0.02                  |
| 125                                    | 0.22   | 0.01                  |
| 180                                    | 0.54   | 0.02                  |
| 200                                    | 0.67   | 0.03                  |
| 250                                    | 0.88   | 0.03                  |
| 315                                    | 1.01   | 0.01                  |
| 400                                    | 1.10   | 0.03                  |
| 500                                    | 1.10   | 0.03                  |
| 630                                    | 1.09   | 0.00                  |
| 800                                    | 1.01   | 0.03                  |
| 1000                                   | 0.98   | 0.03                  |
| 1250                                   | 0.94   | 0.01                  |
| 1600                                   | 0.89   | 0.01                  |
| 2000                                   | 0.85   | 0.01                  |
| 2500                                   | 0.88   | 0.03                  |
| 3150                                   | 0.91   | 0.01                  |
| 4000                                   | 0.85   | 0.01                  |
| 2000                                   | 0.80   | 0.02                  |

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