TIMBERIX

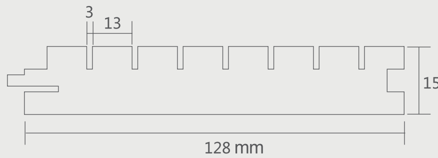
WOODEN GROOVED PANEL

TIMBERIX wooden grooved panels reduce echoes by trapping and diffracting sound in the grooves and perforation found on the surface. The sound that passes through the perforation is further absorbed by an acoustic substrate such as fibreglass or mineral wool, which reduces reverberation in the room. Smaller grooves are better at attenuating high frequency sounds, whereas larger grooves are better at controlling low frequency sounds.

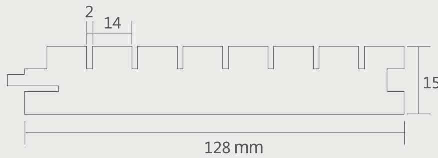
Pattern 13-3

Pattern 14-2

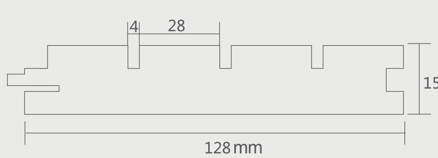
Pattern 28-4



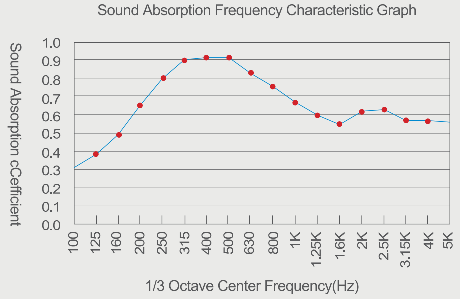
(Pattern 13-13) Perforation Rate:12%

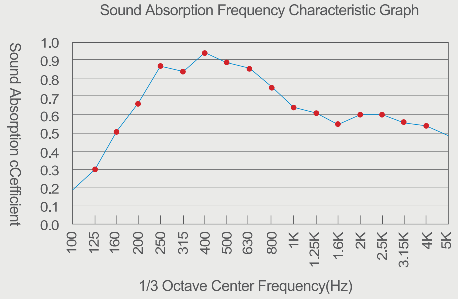


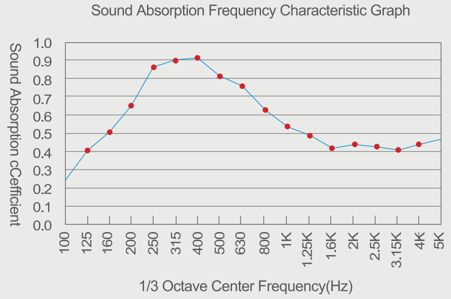
(Pattern 14-2) Perforation Rate:7.5%



(Pattern 28-4) Perforation Rate:7%



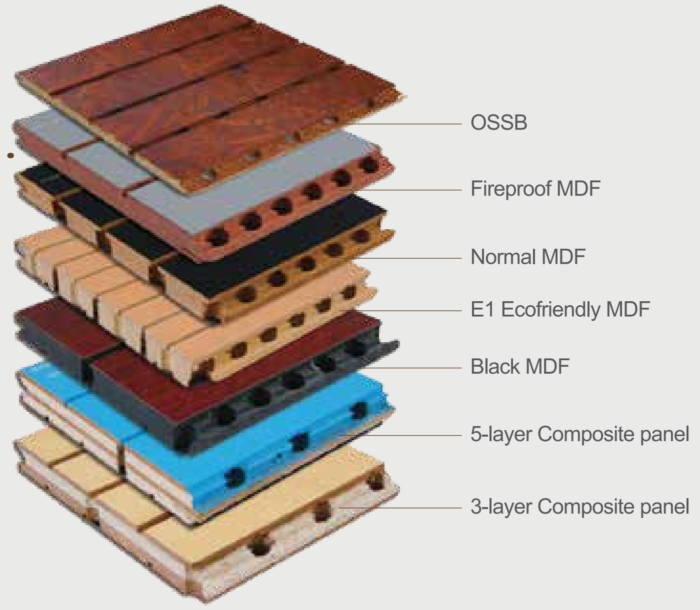




Our wooden grooved acoustic panel is made up of a series of slats and grooves. Each panel has a machined tongue and groove joint for a seamless joinery. TIMBERIX wooden grooved panels come in 4 different patterns: 13-3, 14-2, 28-4, 59-5. The first number refers to the slat size (mm) and and second number refers to the groove size (mm). The surface comes in 4 types of finishing: paint, melamine, PP, and veneer. The base material can be made of MDF, fire-resistant MDF, eco-friendly MDF, black MDF, 3-layer composite, 5-layer composite or OSB.

Specifications

1. Structure: Base Material, Finishing & Fleece
2. Material: E1 MDF, FR MDF, MgO Composite Board, etc.
3. Finishing: Paint, Melamine, PP, Veneer, etc.
4. Standard Dimension: 2440*192mm, 2440*128mm
5. Standard Thickness: 12mm, 15mm,18mm
6. Standard Pattern: 13-3,14-2, 28-4, 59-5
7. Eco-Friendly Test: EN 13986, E1
8. Fire-Rated Test: ASTM E84-12a Class A, BS476 [Part 7] Class 1



INSTALLATION: TIMBERIX

WOODEN GROOVED PANEL

A) Preparation

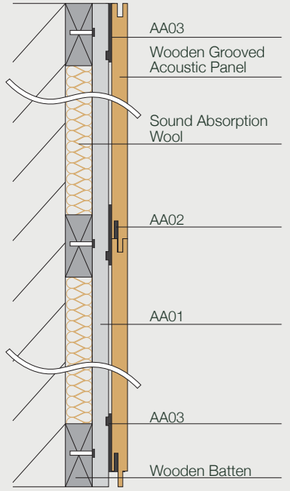
1. Place of installation must be dry, with temperature no less than 10 degrees Celsius.
2. Humidity level should be kept between 40% to 60%.
3. TIMBERIX panels must be placed on site for at least 48 hours in order to adapt to the environmental conditions.
4. Distance between each wooden batten should be less than 5 00mm, and that between each steel keel should be no more than 600mm.

B) Installation

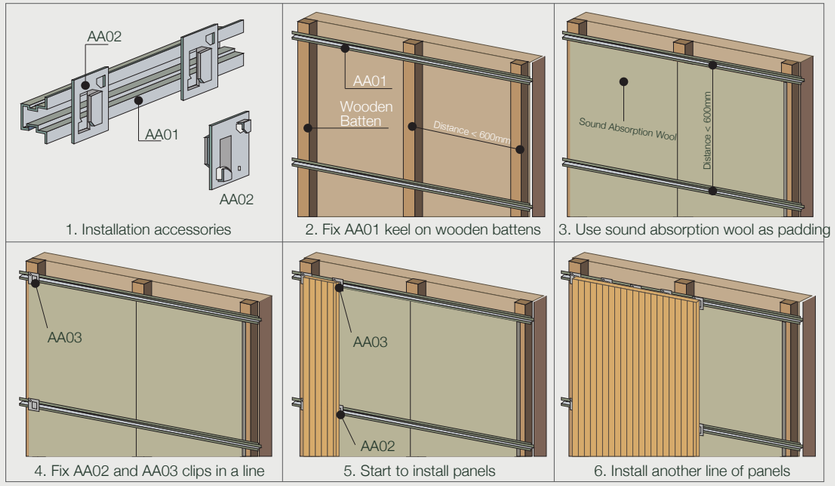
1. Mark out placement of TIMBERIX panels, and take into account M&E positions.
2. Cut panels to size according to final positions.
3. Decide on type of installation system to use.
4. Install acoustic substrate of choice.
5. Join TIMBERIX wooden grooved panels from top-to-bottom, and left-to-right.
6. For wood laminate and veneer finishes, ensure that wooden grooved panels are installed with matching grain directions.
7. Clean surface of the TIMBERIX panels with compressed air and gently wipe with dry cloth.

C) Installation System

1. Steel keel system
2. Wooden batten system



Cross-section Structure



Installation: Steel Keel System

Timberix Grooved 14/2
Wan Tho Avenue, Singapore

Home Theatre

Location
Wan Tho Ave, Singapore

Client
Private

Architect
HYLA Architects

Consultant
Soundzipper LLP

Main Contractor
Emma Group Pte Ltd

The home theatre located at Wan Tho Ave in Singapore was designed to achieve acoustics specifications of Sound Transmission Class (STC) 55, Impact Isolation Class (IIC) 50, and Reveberation Time to decay 60 Decibels (RT60) time of 0.8 seconds.

The consultant Soundzipper LLP has nominated both Timberix and Fabrix acoustic panels to achieve the required RT60 time.

Timberix grooved panels with grooves 14/2, and black walnut and PU matte lacquer finish were installed onto the walls and ceiling of the theatre. Fabrix acoustic panels were also cladded onto the front and dihedral corners of the room to achieve the required reverberation time.

INSTALLATION:
TIMBERIX

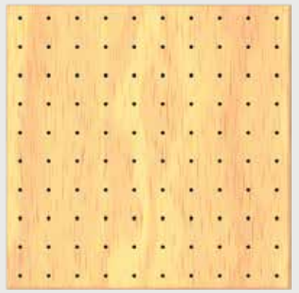
WOODEN PERFORATED PANEL

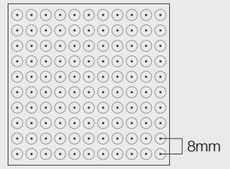
A) Preparation

1. Place of installation must be dry, with temperature no less than 10 degrees Celsius.
2. Humidity level should be kept between 40% to 60%.
3. TIMBERIX panels must be placed on site for at least 48 hours in order to adapt to environmental conditions.

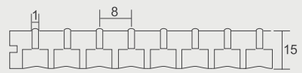
B) Installation

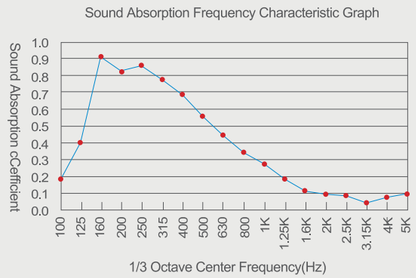
1. Mark out placement of TIMBERIX panels, and take into account M&E positions.
2. Decide on type of installation system to use.
3. Install acoustic substrate of choice.
4. For wood laminate and veneer finishes, ensure that panels are installed with matching grain directions.
5. Clean surface of the TIMBERIX panels with compressed air and gently wipe with dry cloth.

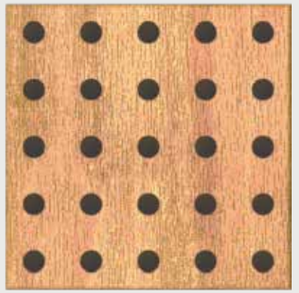


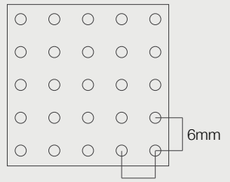


Pattern:
8-8-1 Micro Holes

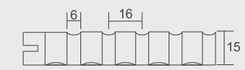


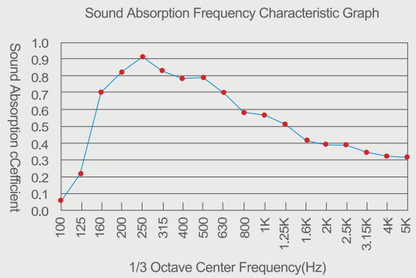






Pattern: 16-16-6

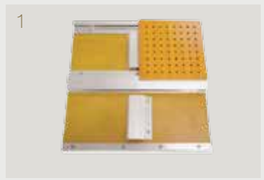


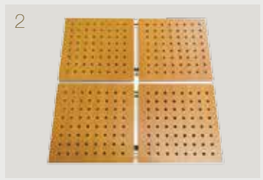


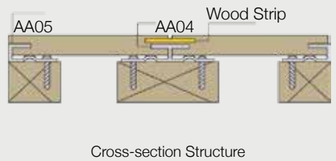
C) Installation System

Wooden panels expand and contract with changes in humidity and temperature. We strongly recommend using Installation System I (with gap) to prevent buckling of panels.

Installation System I (with gap)

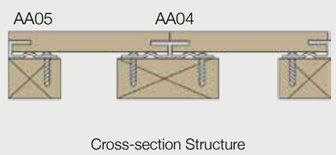






Cross-section Structure

Installation System II (without gap)



Cross-section Structure

TIMBERIX

WOODEN PERFORATED PANEL

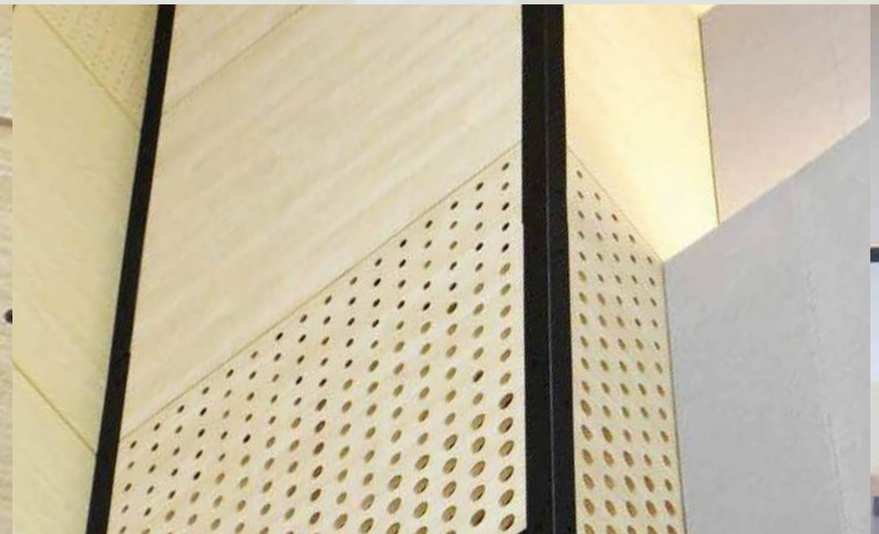
TIMBERIX wooden perforated panels is made with a 2-layer perforation structure, which traps and diffracts sound in the holes. The sound that passes through the perforation is further absorbed by an acoustic substrate such as fibreglass or mineral wool, which reduces reverberation in the room. The perforation comes in many sizes ranging from 1mm to 25mm. Smaller holes are better at attenuating low frequency sounds, whereas larger holes are better at reducing high frequency sounds.

Specifications

1. Structure: Basic Material, Finishing & Fleece
2. Material: E1 MDF, FR MDF, MgO Composite, etc.
3. Front Surface: Melamine, PP, Wood Veneer, Paint, etc.
4. Standard Dimension: 600mm x 600mm, 600mm x 1200mm, 1200mm x 1200mm, 1200mm x 2400mm
5. Standard Thickness: 12mm, 15mm, 18mm
6. Distances of Two Holes: 8/8mm, 16/16mm and 32/32mm
7. Diameter of Holes: 1, 2, 3, 4, 5, 6, 8,10, 12mm, etc.
8. Standard Patterns: 8/8/1, 16/16/3, 16/16/6, 32/32/6, 32/32/8, etc.
9. Hole Arrangement: Linear (E), Staggered (V)
10. Eco-Friendly Test: EN 13986, E1
11. Fire-Rated Test: ASTM E84-12a Class A, BS476 [Part 7] Class 1

Our wooden perforated acoustic panel is made up of a series of perforations. Each panel has a machined groove joint for either a seamless or gap joinery. TIMBERIX wooden grooved panels come in 8 standard patterns: E4/4/1, E8/8/1, E16/16/3, E16/16/6, E32/32/6, V16/16/6, V32/32/6, and V32/32/8. The first alphabet refers to the hole arrangement (E is linear and V is staggered), the second pair of numbers refer to the distance between the two holes, and the last number refers to the hole diameter. The surface comes in 4 types of finishing: paint, melamine, PP, and veneer. The base material can be made of MDF, fire-resistant MDF, eco-friendly MDF, black MDF, 3-layer composite, 5-layer composite or OSB.

Timberix Perforated 32/32/6
Hewlett Packard, Singapore



Multi-Purpose Hall

Location
1160 Depot Road, Singapore

Client
Hewlett Packard Enterprise

Architect
RSP Architects Planners and Engineers Pte. Ltd.

Main Contractor
SpaceLogic Pte. Ltd.

The Hewlett-Packard Company (commonly referred to as HP) was an American multinational information technology company headquartered in Palo Alto, California.

The Multi-Purpose Hall (MPH) was built in 2016 to facilite both arts performances and sports events. The hall also serves as a venue for business functions wtihin Hewlett-Packard.

The acoustics of the MPH was designed to achieve an RT60 time of 1.2 - 1.8 seconds. Timberix perforated panels with perforations E 32/32/6, and oak melamine finish were installed onto the walls of the hall. Fabrix acoustic panels were also cladded onto the left and right side of the hall to achive the required reveberation time.