

# AKUPANEL

## Acoustic Panel

MATERIALS DATA HANDLING SHEET

## WOOD VENEER

### MATERIAL NAME

Wood veneers of any species or grade, dried after slicing or peeling.

### RECOMMENDED USE

Bonded to a substrate to provide a decorative finish.

### SUPPLIER

WoodUpp.

## Hazard Identification

Wood veneer is classified as a non hazardous material, however, handling the product without gloves may give rise to splinters.

When sanding, wood dust is produced which may cause irritation of the nose, throat, eyes and skin. Wood dust may also be a sensitiser, which may cause allergic reactions. Prolonged inhalation of wood dust can be carcinogenic.

Exposure to wood dust may result in the following health effects:

### Ingested

Unlikely to occur in large quantities.

### Eye Contact

Wood dust may cause temporary discomfort.

### Skin Contact

Wood dust may cause itching and occasionally a rash, depending on the individual and the species of veneer.

### Inhalation

Wood dust may irritate the throat and lungs.

## Chemical Identity

Wood is comprised of cellulose, hemicellulose and lignin, with traces of other chemical substances, all of which are non-hazardous in themselves, in the concentrations present in veneers.

## First Aid Measures

General First Aid: Seek medical advice if any symptoms arise apparently due to contact with this product.

### Swallowed

Drink water – seek professional medical advice.

### Eye Contact

If wearing contact lenses, remove them and flush eyes with flowing water.

### Skin Contact

Wash with soap and water.

### Inhalation

Remove person to fresh air. If recovery is not rapid, seek medical help.

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### Fire Fighting Measures

This product is not considered a fire hazard. However, in common with many other organic chemicals the product may in certain circumstances form flammable dust clouds in air.

Burning or smouldering veneer generates irritant/toxic fumes. Use water, dry chemical, foam or CO<sup>2</sup> fire extinguishers.

### Handling & Storage

A build-up of dry wood dust in the air should be avoided by appropriate extraction equipment. Smoking must not be allowed where wood dust is present in the air. Veneers should be stored away from sources of heat, flames or sparks. No special transport requirements are necessary.

### Exposure Controls & Personal Protection

#### Engineering Controls

Work with veneers should be carried out in such a way as to minimise the generation of wood dust.

#### Skin Protection

Long sleeved shirts, trousers and work gloves should be worn if skin irritation occurs. Gloves should be worn to minimise the risk of splinters.

#### Respiratory Protection

If wood dust exposures are not controlled when sanding veneers, a respirator should be worn, that complies with current regulations.

#### Eye Protection

Safety glasses should be worn when machining.

### Toxicological Information

Prolonged exposure to wood dust may cause nasal cancers. Small particles of air-borne dust, produced by fine sanding should be removed through installation of an effective dust extraction system and/or the use of face masks.

Skin irritation/Dermatitis is unlikely when handling dried veneers however some wood dusts can produce this form of irritation. Sensitisation dermatitis is more troublesome and is usually initiated by exposure to the fine wood dust of certain timbers.

#### Respiratory Irritation

In parallel with dermatitis, respiratory irritation exists in both the primary irritant and allergenic forms. Symptoms include running nose and eyes and also sneezing and, occasionally, nose bleeds. In the more extreme cases, the affected worker may experience breathing difficulties, sometimes leading to asthma-like symptoms.

### Disposal Considerations

Unwanted product should be disposed of by land-fill or incineration at an authorised site in accordance with local regulations.

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### MR MDF

**MATERIAL NAME**

Coloured High-density  
MDF board.

**RECOMMENDED USE**

Moisture Repellent MDF for use  
in humid conditions.

**SUPPLIER**

WoodUpp.

### Hazard Identification

Hazard Class EN 335-3

When sanding, wood dust is produced which may cause irritation of the nose, throat, eyes and skin. Wood dust may also be a sensitiser, and can cause allergic reactions. Prolonged inhalation of wood dust can be carcinogenic.

### Technical Specification

Feature	Standard	Unit	Thickness				
Swelling in thickness 24h	EN 317	%	18	12	10	8	7
Internal bond	EN 319	N/mm <sup>2</sup>	0,70	0,80	0,80	0,75	0,75
Bending strength	EN 310	N/mm <sup>2</sup>	34	34	32	30	28
Modulus of elasticity in bending	EN 310	N/mm <sup>2</sup>	3000	3000	2800	2700	2600
Option 1							
Swelling in thickness after cyclic testing	EN 317 EN 321	%	25	19	16	15	15
Internal bond After cyclic testing	EN 319 EN 321	N/mm <sup>2</sup>	0,35	0,30	0,25	0,20	0,15
Option 2							
Internal bond After boll test	EN 319 EN 1087-1	N/mm <sup>2</sup>	0,20	0,15	0,15	0,12	0,12

Manufactured in accordance to EN 622-5

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### First Aid Measures

#### General First Aid

Seek medical advice if any symptoms arise apparently due to contact with this product.

#### Swallowed

Drink water – seek professional medical advice.

#### Eye Contact

If wearing contact lenses, remove them and wash eyes with flowing water.

#### Skin Contact

Wash with soap and water.

#### Inhalation

Remove person to fresh air. If recovery is not rapid, seek medical help.

### Handling & Storage

Wherever possible, protect from any direct contact with water. Boards must be stacked flat, on a pallet or using sufficient number of cross members. Boards should not be stored vertical unless ground contact can be avoided. Expansion and contraction will occur under variable humidity conditions.

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### PET FELT

**MATERIAL NAME**

100% PET (Polyester fibre) felt including up to 45% post consumer recycled content.

**RECOMMENDED USE**

Wall cladding with strong acoustic benefits.

**SUPPLIER**

WoodUpp.

### Hazard Identification

Not normally a hazard to eyes or skin. If swallowed or inhaled, seek professional medical advice. This product is non-irritant and does not present any health hazard during manufacture, normal handling or use.

### Chemical Identity

100% PET (Polyester fibre) board including up to 45% post consumer recycled content. Emits a total VOC emission rate of <0.04mg/m<sup>2</sup>/hr (over 7 days).

### First Aid Measures

The materials are not poisonous. In the event of digestion of a substantial quantity, provide water and induce vomiting. Burns from molten ingredients require medical treatment.

### Fire Fighting Measures

Precautionary measures should be taken against static discharge. Products resulting from combustion of polyester will comprise of carbon, hydrogen and oxygen. The exact composition depending on the conditions of combustion. Use water, dry chemical, foam or CO<sup>2</sup> fire extinguishers.

### Handling & Storage

Should be stored flat and kept dry. No special storage or transport requirements are necessary. Adoption of safe working practices is recommended.

### Toxicological Information

Low VOC, non toxic, no formaldehyde.

### Disposal Considerations

Unwanted product should be recycled at an authorised site in accordance with local regulations.

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# AKUPANEL

## Acoustic Panel

Beautiful. Quiet.  
Good for the environment.

**2400mm x 600mm standard size**

**11mm deep x 27mm wide lamellas**

**9mm fleece backing**

**Total thickness 20mm**

### 6 Standard Veneer Faces

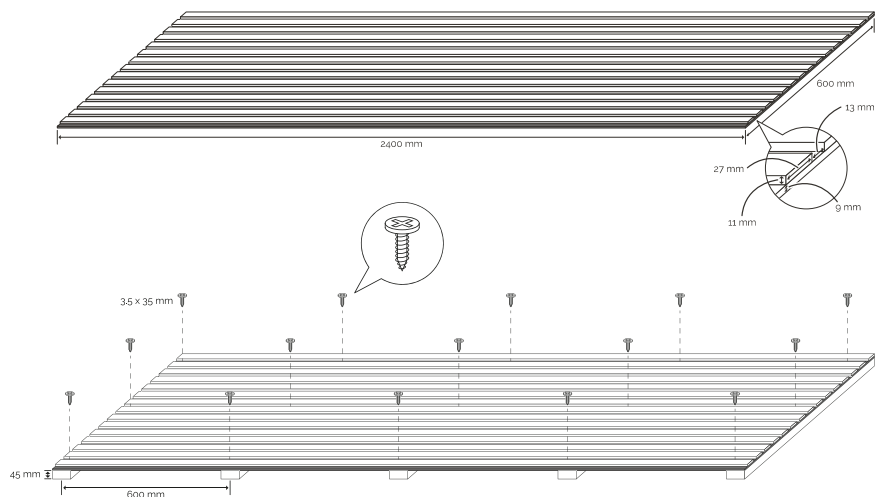
Available in a range of standard face veneers. Please see our website for the latest options.

### 2 Standard Fleece Colour Options

- Black
- Grey

### Bespoke Options available

- 34 fleece colour options
- Almost any standard veneer specie
- Alter the width and/or spacing of the lamellas



### Installation Instructions (Absorption Class C)

1. Install 45mm (thickness) battens directly to your wall/ceiling with a distance of 600mm.
2. Install the acoustic panels directly on the battens with screws (min. 3.5mm × 35mm). You can easily fit the screws between the lamellas into the underlying acoustic felt. Every panel is installed with 15 screws.
3. Cutting the panels is easily done with a fine jagged saw. The underlying acoustic felt is easily cut with a good knife.
4. For an expanded acoustic solution, you can place 45mm insulation between the studs.

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## Acoustic Panel

### Measurement of Sound Absorption Coefficient for Akupanel Acoustic Panels.

Laboratory measurements of sound absorption coefficient were carried out in a reverberation room according to the test method of EN ISO 354:2003.

#### Product

Akupanel Acoustic Panel.  
Wooden slat panel mounted on a polyester felt.

#### Wood Slat

MDF with veneer.

#### Thickness

11mm.

#### Width

27mm.

#### Air Gap Between Wood Slat

13mm.

#### Polyester Felt

9mm porous polyester felt (density 20 kg/m<sup>3</sup>).

#### Total Thickness of Panel

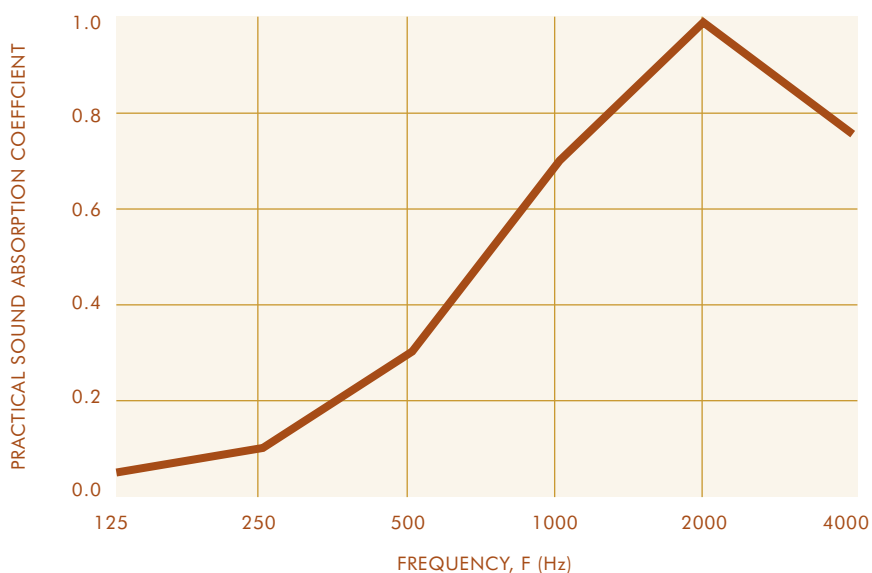
20mm.

#### Installation

The panels were mounted directly to the wall.

#### Absorption

Class D, according to EN ISO 11654: 1997



As seen in the graph, the 20mm panel, mounted directly to the wall, obtains an absorption coefficient of 0.35 (MH).

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## Acoustic Panel

### Measurement of Sound Absorption Coefficient for Akupanel Acoustic Panels, suspended 65mm, with 45mm Mineral Wool.

Laboratory measurements of sound absorption coefficient were carried out in a reverberation room according to the test method of EN ISO 354:2003.

#### Product

Akupanel Acoustic Panel.  
Wooden slat panel mounted on a polyester felt, with 45mm mineral wool.

#### Wood Slat

MDF with veneer.

#### Thickness

11mm.

#### Width

27mm.

#### Air Gap Between Wood Slat

13mm.

#### Polyester Felt

9mm porous polyester felt (density 20 kg/m<sup>3</sup>).

#### Total Thickness of Panel

20mm.

#### Mineral Wool

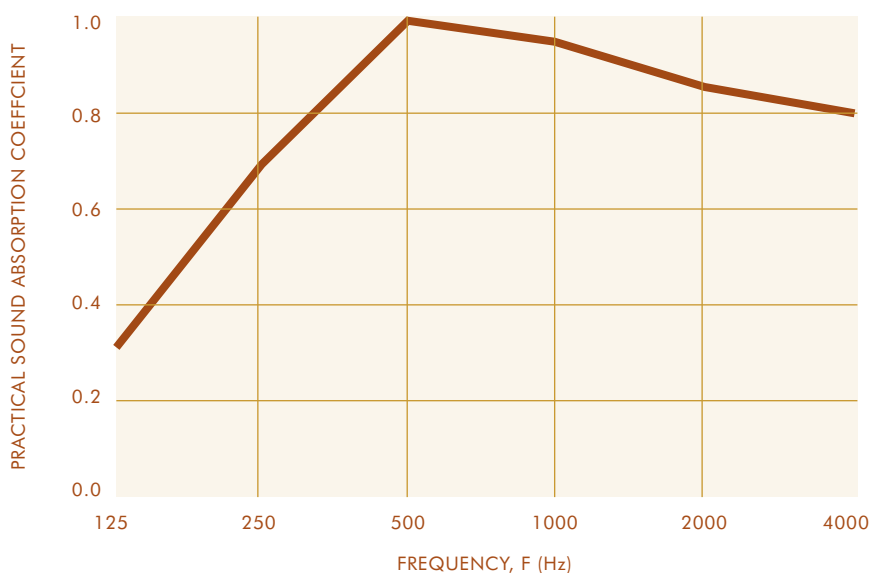
45mm ISOVER 37 Basic batts (density 15 kg/m<sup>3</sup>).

#### Installation

The panels were supported by 45 x 45mm laths with 600mm centre to centre distance, with mineral wool between the laths.

#### Absorption

Class A, according to EN ISO 11654: 1997.



As seen in the graph, the 20mm panel, suspended on 45mm of material wool obtains an absorption coefficient of 0.9 (MH).

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# AKUPANEL

## Acoustic Panel

### Measurement of Sound Absorption Coefficient for Akupanel Acoustic Panels, suspended 65mm.

Laboratory measurements of sound absorption coefficient were carried out in a reverberation room according to the test method of EN ISO 354:2003.

#### Product

Akupanel Acoustic Panel.  
Wooden slat panel mounted on a polyester felt.

#### Wood Slat

MDF with veneer.

#### Thickness

11mm.

#### Width

27mm.

#### Air Gap Between Wood Slat

13mm.

#### Polyester Felt

9mm porous polyester felt (density 20 kg/m<sup>3</sup>). Total

#### Thickness of Panel

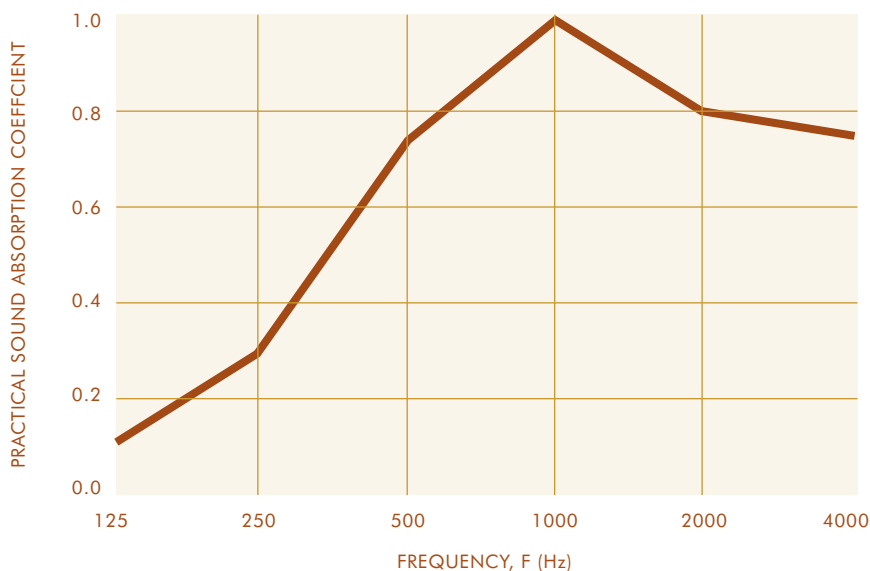
20mm.

#### Installation

The panels were supported by 45 x 45mm laths with 600mm centre to centre distance, with nothing between the laths.

#### Absorption

Class C, according to EN ISO 11654: 1997.



As seen in the graph, the 20mm panel, suspended over a 45mm air pocket, obtains an absorption coefficient of 0.60 (MH).

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