

PERFECTION IN THE
ABSORPTION OF SOUND



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■ CREAWOOD®

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■ TAVAPERF

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TAVAPAN SA - An established modern company with up to date products



Our company was formed in 1935, Since then we have concentrated on the manufacture and marketing of wood based products for international clients.

From the beginning our range of products has been continuously modified and improved and today we exclusively manufacture for the high quality niche and technically demanding market, in particular for the following sectors:

- Acoustic sound absorption
- Thermal and sound insulating sandwich panels
- Veneered and decorative high quality panels and elements

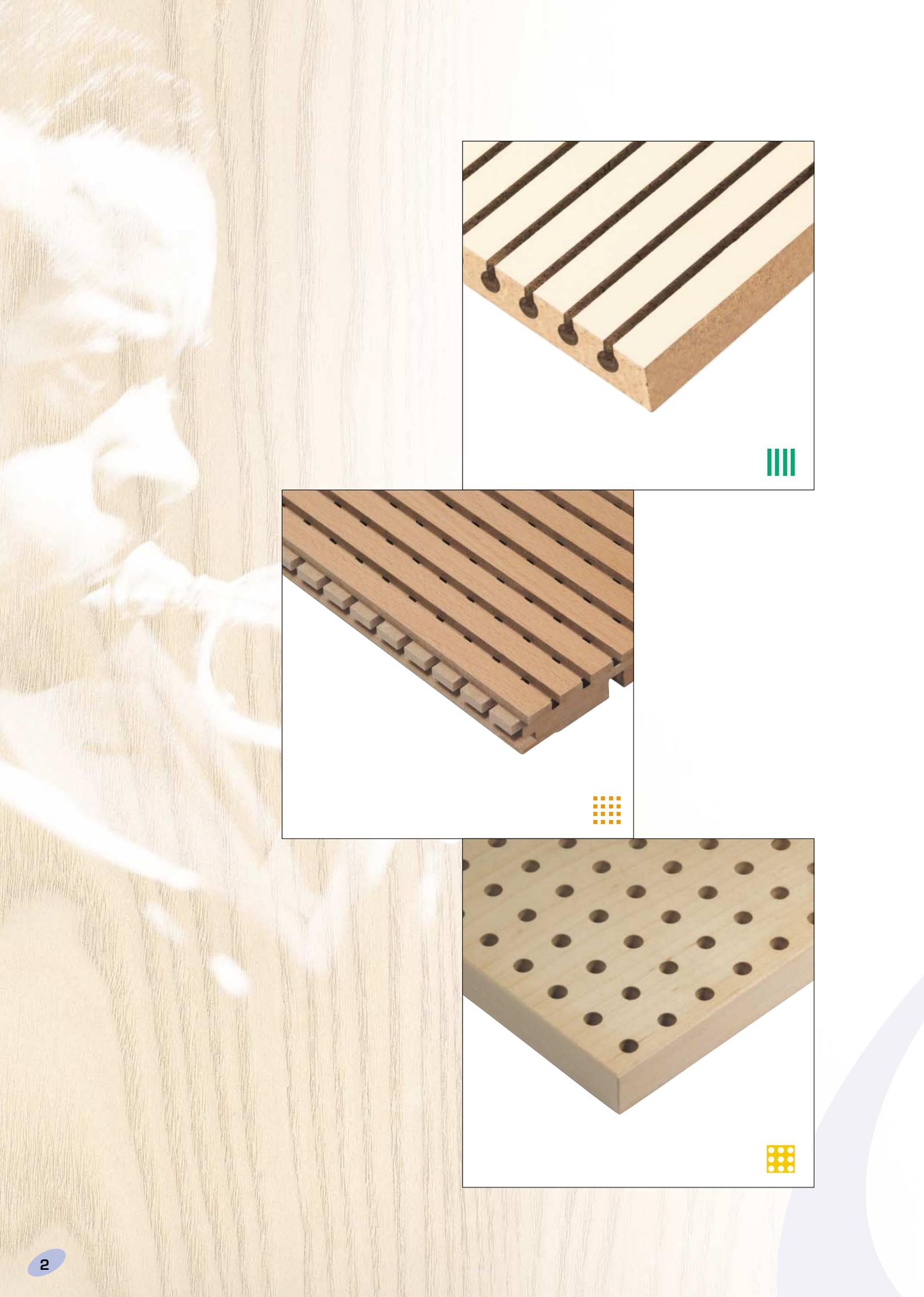
A very important development for our company was during the 1990s, when we became part of the Portuguese group SONAE.

A world-wide group, with 50'000 employees, working in various economic sectors provides Tavapan with the necessary support to develop and maintain contacts with it's clients.

We are pleased to present to you on the following pages, our range of acoustic products and to leave you to be surprised by it's variety. Our long-standing experience provides you with standard products in many forms, as well as purpose made to your acoustic and design requirements.

A company of the group





Introduction to the world of Tavapan Wooddesign

We offer you the best solution for acoustic and aesthetic requirements for your construction projects. Our range of acoustic products consists of three principal products:

DEWETON®

CREAWOOD®

TAVAPERF

DEWETON®

This classic product, amongst our range of acoustic panels, has remained in fashion since its introduction over 30 years ago and is still appreciated and in demand.

The surface has 4mm wide grooves connecting into the tubular core of the 25mm thick extruded chipboard panel. Using Deweton® provides a visual appearance of fine and discreet lines to wall and ceiling surfaces.

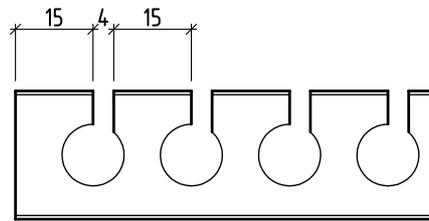
CREAWOOD®

This tongued and grooved slat distinguishes itself by its excellent sound absorption values and design. Rectangular surface perforations are created by surface grooving at right angles to narrow strips of the panel core, created in the manufacturing process. Creawood® provides an infinite variety in the finishing of wall and ceiling surfaces with concealed joints.

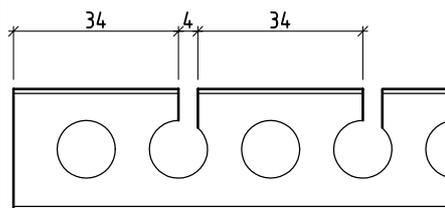
TAVAPERF

The attractive simplicity of its circular perforations provides this product with a clear and clean image. Varying the different perforation diameters and centres influences the visual appearance and levels of sound absorption.

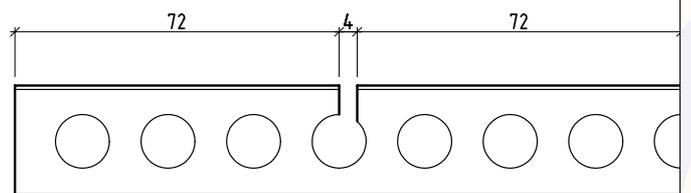
The panel surface may be timber veneered, melamine coated or lacquered in RAL/NCS colours. It is possible to use all of these products in combination for the same project.



Deweton® Type A1 / Type D1



Deweton® Type A2 / Type D2



Deweton® Type A4 / Type D4

Deweton® acoustic panels

- Deweton® acoustic panels are based on an extruded core, they are individually made to order.
- You can choose from several standard lengths and of course we can produce non-standard sizes to your requirements.
- You have the choice of two panel types A (absorption) D (insulation). Both types are available with different face slitting dimensions which allows you to 'tune' the sound absorption to suit your application.
- Deweton® panels are available finished with wood veneer, melamine, or lacquered in any of the RAL/NCS range of colours.
- Deweton® panels provide an interesting low cost solution to acoustic problems.

Types: Details of the two types of Deweton® panels:

Type A:

For sound absorption; slit on the finished face, with the back of the panel intermittently slit (approximately 300mm long). Deweton® type A panels offer excellent sound absorption.

Slit every tube	4mm wide, at 15mm centres
Slit every 2nd tube	4mm wide, at 34mm centres
Slit every 4th tube	4mm wide, at 72mm centres
Asymmetrically slit	4mm wide

Type D:

For sound insulation; slit on the finished face, with the back of the panel ungrooved. In combination with A type, the acoustic requirements can be solved by preserving an uniform surface on the visual level.

Slit every tube	4mm wide, at 15mm centres
Slit every 2nd tube	4mm wide, at 34mm centres
Slit every 4th tube	4mm wide, at 72mm centres
Asymmetrically slit	4mm wide
Non grooved – sound reflective	

Fire performance:

Available with two types of panel core E1/B2 normally flammable (DIN 4102) and E1/B1 difficult to ignite (DIN 4102) for treatment with surface fire lacquers. The class of fire refers only to support panel – **Type D2 refers on the finite element** and is controlled by the monitoring of the building sites.

Panel sizes(mm):

panel core E1/B2	panel core E1/B1
1820 x 604	1820 x 604
2600 x 604	2600 x 604
3200 x 604	3200 x 604

- Deweton® panels are supplied with clean cut edges (tolerance +/- 2mm length)
- Deweton® panels can be supplied, to order, pre-cut to your requirements (tolerance +/- 0.5mm)
- Finished long edges, with timber veneer or melamine, can be supplied to order.

Thermal insulation:

Approximately 0.15 W/m²K

Weight:

Panel core E1/B2	approximately 10.5 kg/m ²
Panel core E1/B1	approximately 13.0 kg/m ²

Installation:

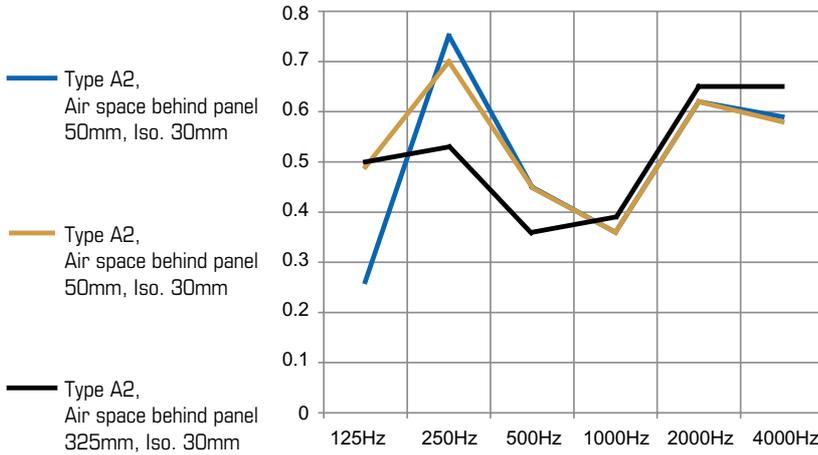
Deweton® panels are fixed by means of special staples or nailing through the panel grooves. For installation on ceilings or suspended ceilings, we recommend that a wood glue is also used between the panel back and batten face.

Structure:

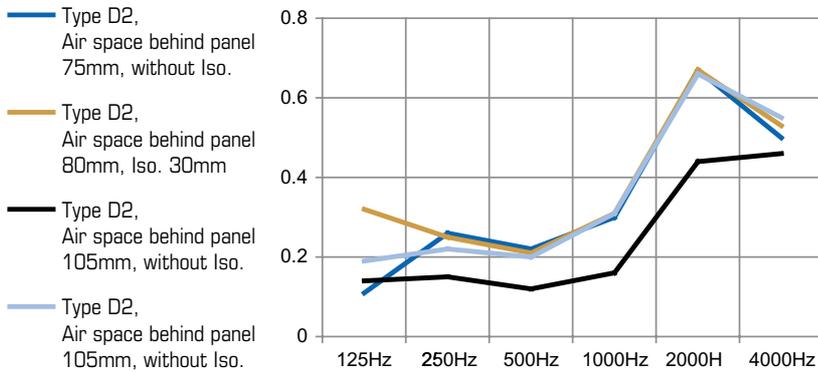
See chapter "Specification text" for Deweton® panels on page 7

Sound absorption data

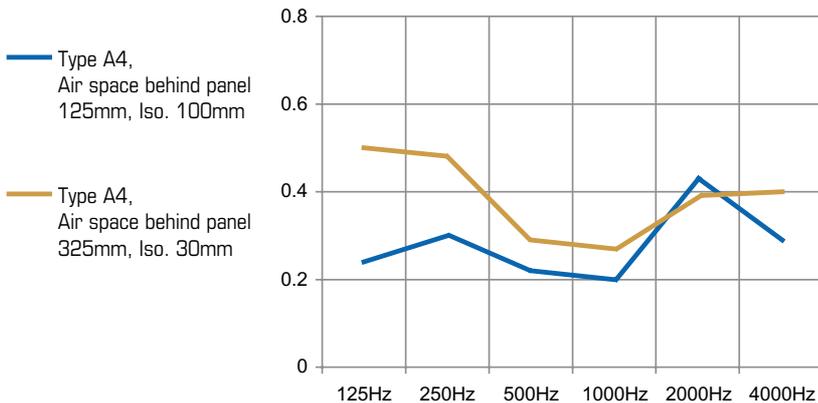
DEWETON® TYPE A2



DEWETON® TYPE D2



DEWETON® TYPE A4



SPECIFICATION TEXT FOR DEWETON®

Fixing to wall surfaces

Pos 1

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 600 mm centres, at 90 degrees to the direction of the panel surface grooving. This method allows the edges of adjacent panels to rest against a batten. The structure must be perfectly level. Deweton® panels are fixed to the structure through the surface grooving at approximately 150 mm centres on each batten.

Pos 2

Fixing of extruded chipboard 25 mm thick with 12 mm diameter tubular core, with 4 mm wide surface grooving.....mm, type..... Fixing in each groove. A 4 mm gap is left between adjacent panels at both sides and ends.

Fixing direct to ceilings without suspension

Pos 1

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 450 mm centres, at 90 degrees to the direction of the panel surface grooving. This method allows the edges of adjacent panels to rest against a batten. The structure must be perfectly level. Deweton® panels are fixed to the structure through the surface grooving at approximately 150 mm centres on each batten.

Pos 2

see above

Fixing to suspended ceilings

Pos 1

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 450 mm centres, at 90 degrees to the direction of the panel surface grooving, to a proprietary metal sub-grid system. This method allows the edges of adjacent panels to rest against a batten. The structure must be perfectly level. Deweton® panels are fixed to the structure through the surface grooving at approximately 150 mm centres on each batten.

Pos 2

see above

Installation of a wall system for ball impact resistance (according to DIN Norm 18032, 3rd part)

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 150 mm centres (for panels grooved at 19 mm centres) or maximum 380mm centres (for panels grooved at 38mm centres), at 90 degrees to the direction of the panel surface grooving, to a proprietary metal sub-grid system. This method allows the edges of adjacent panels to rest against a batten. The structure must be perfectly level. Deweton® panels are fixed to the structure through the surface grooving at approximately 150 mm centres on each batten.

Pos 2

see above

Installation of a ceiling system for ball impact resistance (according to DIN Norm 18032, 3rd part)

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 150 mm centres (for panels grooved at 19 mm centres) or maximum 380 mm centres (for panels grooved at 38mm centres), at 90 degrees to the direction of the panel surface grooving, to a proprietary metal sub-grid system. This method allows the edges of adjacent panels to rest against a batten. The structure must be perfectly level. Deweton® panels are fixed to the structure through the surface grooving at approximately 150 mm centres on each batten.

Pos 2

see above

Hospital Deggendorf, D – Deggendorf



Hospital Deggendorf, D – Deggendorf



St. Chrischona Pilgermission, CH – Basle

References

- **Switzerland:**

 - Basler Insurance, Basle
 - Stock Exchange, Basle
 - Stock Exchange, Zurich
 - BUWAL, Uttigen
 - Ciba-Geigy, Basle
 - ETH, Zurich
 - Gymnasium, Biel/Bienne
 - Hall of Jubilee, Macolin
 - Cantonal Hospital, Luzern
 - Barracks Monte Ceneri, Rivera
 - Mc Donald Restaurant, Freiburg
 - Swiss Mobiliar Insurance, Berne
 - Opera House, Zurich

- **China:**

 - Hong Kong Contemporary Art Museum, Hong Kong

- **Germany:**

 - Daimler Benz AG, Mannheim
 - Airport Frankfurt a.M.
 - Hospital Deggendorf, Deggendorf
 - ZDF Studios, Unterföhring

- **France:**

 - Citröen, Projection room, St.-Ouen
 - Dassault, Offices, St.-Cloud
 - School Nanterre
 - Maison Lafitte, Restaurant, St.-Nicolas
 - Defense Ministry, Processing data Room, Dijon

- **Jordan:**

 - United Jordanian Company for Investments, Amman

- **Korea:**

 - Inter Airport Radio Studio, Seoul

- **Scotland:**

 - Community Center, Bernera

- **Singapore:**

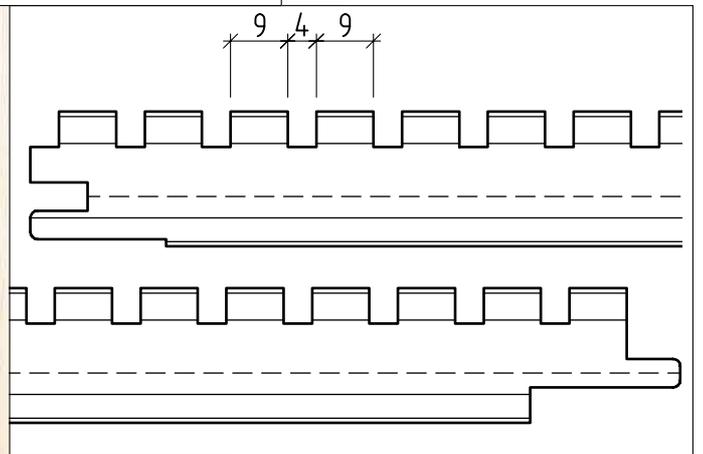
 - Premas Training Room, Singapore
 - Science Center, Singapore

- **United Arab Emirates:**

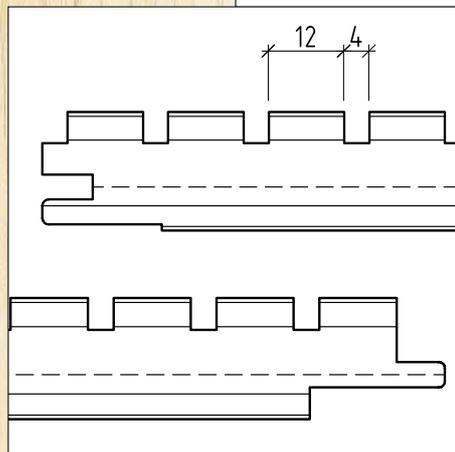
 - Latifa School, Dubai
 - Sheikh Rashid School, Dubai
 - Theatre Engineering Trading Co., Sharjah

- **United Kingdom:**

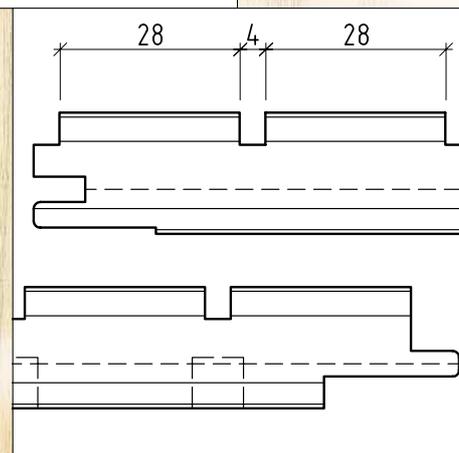
 - Alexander Gibson Opera School, Glasgow
 - America Community School, Samsung UK, Headquarters, Billingham
 - Brook Western Technical College, Corby
 - Government Conference Centre, London
 - St. Mary's School, Cambridge
 - Thomas Johnstone Ltd, Erskine Hospital–Main Build, Renfrewshire, Cobham



Creawood® Type A9 / D9



Creawood® Type A12 / D12



Creawood® Type A28 / D28

Creawood® acoustic slats

- **Creawood®** acoustic slats are made from standard or black MDF core panels.
- The acoustic slats are made to order according to your requirements. You can choose between several standard lengths and, of course, we can also make non-standard lengths.
- **Creawood®** is available with three surface face patterns available in types A and D according to surface grooving and dimensions. The different types can be used together to create an attractive jointless surface.
- The use of B2 and B1 panel cores makes a use of **Creawood®** acoustic slats possible in objects with a requirement to normally flammable as well as difficult to ignite according to German DIN Norm 4102.
- **Creawood®** acoustic slats can be supplied wood veneered or lacquered in the range of RAL colours.

Types: There are two types of **Creawood®** acoustic slats as follows:

Type A:

For sound absorption. With grooving in the length on the surface and back of the panel and grooving in the panel core. **Creawood®** type A offers values of sound absorption particularly at high frequency.

Type A9	4mm groove at 9mm centres
Type A12	4mm groove at 12mm centres
Type A28	4mm groove at 28mm centres

Type D:

For sound insulation. The surface is grooved in the length with a solid back. The panel core is not grooved. Combining both types A and D provides the opportunity to "tune" the room acoustics.

Type D9	4mm groove at 9mm centres
Type D12	4mm groove at 12mm centres
Type D28	4mm groove at 28mm centres
Type D0	ungrooved (reflective panel)

Acoustic Fleece:

To order, the rear surface of Type A can be supplied with a black acoustic fleece. This improves the sound absorption and prevents the extraction of insulation fibre backing.

Fire Rating:

Creawood® panels are available with standard and B1 fire rated cores. B2 = normally flammable, B1 = difficult to ignite

Slat sizes mm:

Panel core E1/B2	panel core E1/B1	
2000 x 199		
2600 x 199	2600 x 199	
3030 x 199	3030 x 199	
3600 x 199	3600 x 199	
4080 x 199		(covering width: 192 mm)

- **Creawood®** acoustic slats have clean cut ends. They can be re-cut on site (tolerance on the length +/- 2 mm).
- **Creawood®** acoustic slats can be supplied to purpose made lengths to order (tolerance on the length +/- 0.5 mm).

Thermal Insulation:

Approximately 0.12W/m²k

Installation:

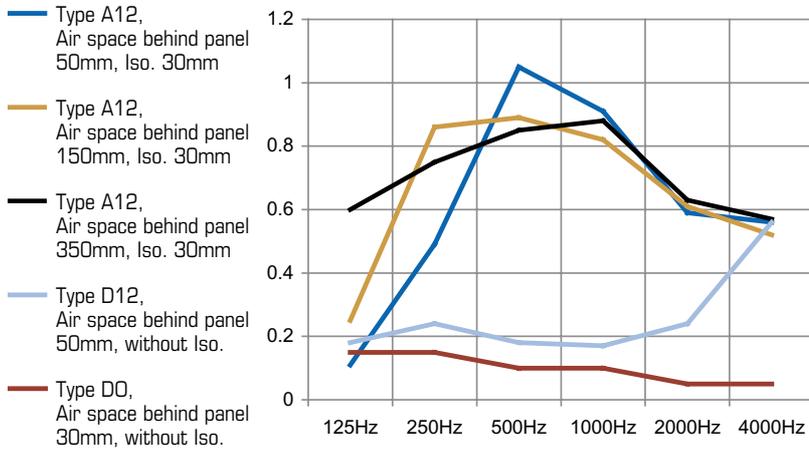
Creawood® acoustic slats are fixed on the length by staples through the edge groove. **Creawood®** can also be fixed to timber battens with special clips and screws.

Structure:

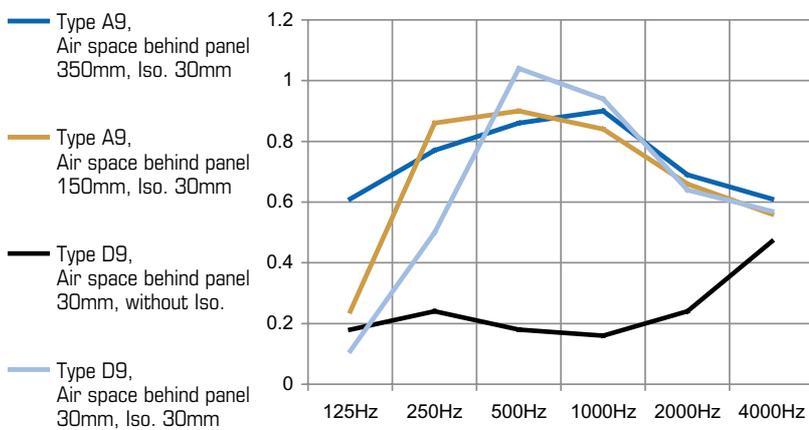
See chapter "Specification Text" for **Creawood®** acoustic slats page 13

Sound absorption data

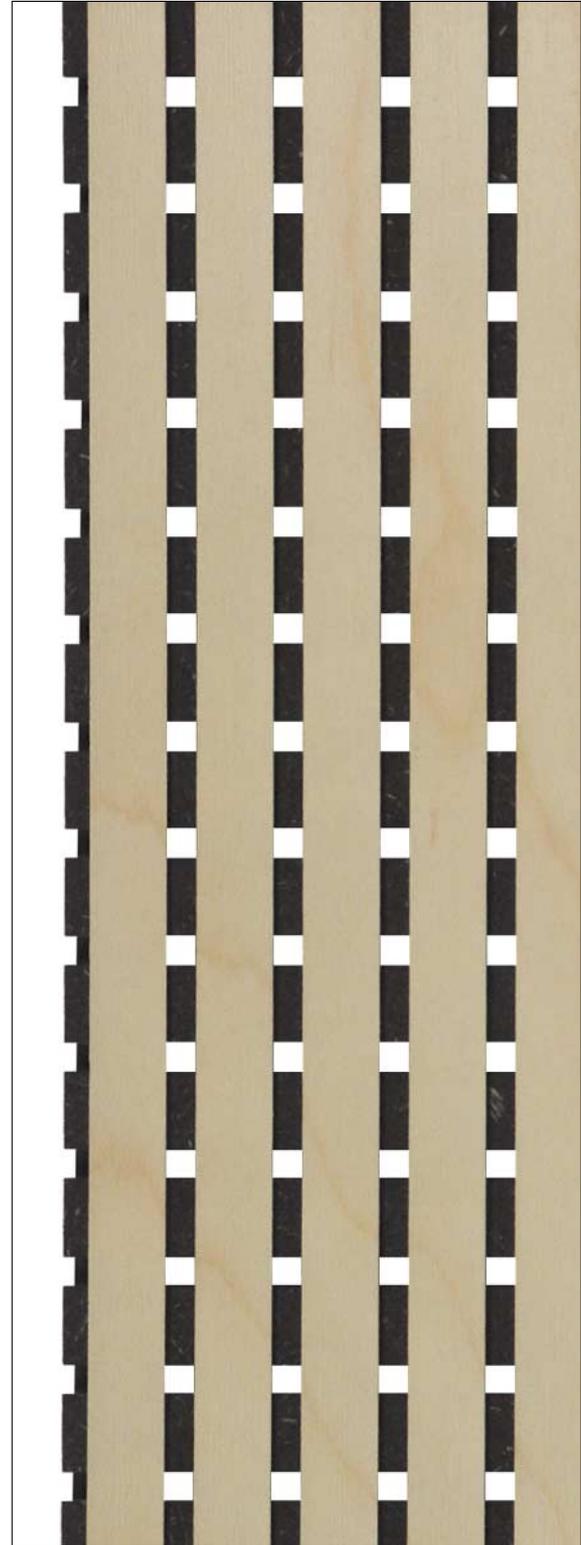
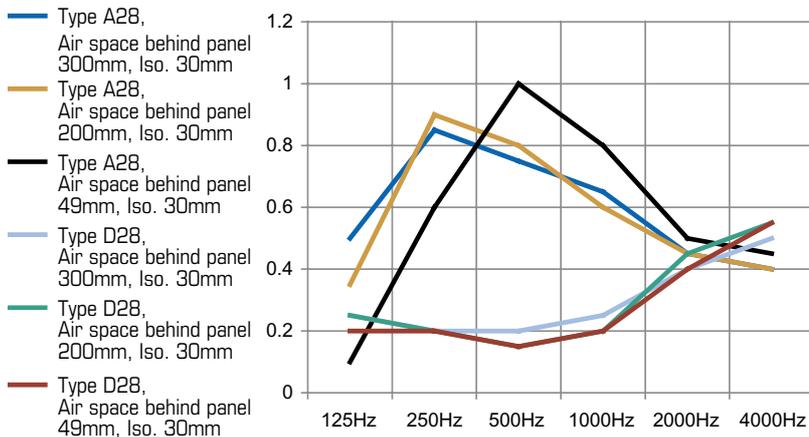
CREAWOOD® TYPES A AND D12



CREAWOOD® TYPES A AND D9



CREAWOOD® TYPES A AND D28



SPECIFICATION TEXT FOR CREAWOOD®

Fixing to wall surfaces

Pos 1

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 600 mm centres, at 90 degrees to the direction of the Creawood® slats. This method allows the edges of adjacent slats to rest against a batten. The structure must be perfectly level. Creawood® slats are stapled to the structure through the edge grooving or with special fixing clips on each batten.

Pos 2

Cladding with Creawood® acoustic slats grooves mm, type Wood veneered 19 mm thick standard core (B2) or 20 mm thick B1 fire rated core, fixed to the structure as previously described.

Fixing direct to ceilings without suspension

Pos 1

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 500 mm centres, at 90 degrees to the direction of the Creawood® slats. This method allows the edges of adjacent slats to rest against a batten. The structure must be perfectly level. Creawood® slats are stapled to the structure through the edge grooving or with special fixing clips on each batten.

Pos 2

see above

Fixing to suspended ceilings

Pos 1

Fix a structure comprising 40 x 60 mm planed softwood battens at maximum 600 mm centres, at 90 degrees to the direction of the Creawood® slats, to a proprietary metal sub-grid system. This method allows the edges of adjacent slats to rest against a batten. The structure must be perfectly level. Creawood® slats are stapled to the structure through the edge grooving or with special fixing clips on each batten.

Pos 2

see above

Installation of a wall system for ball impact resistance (according to DIN Norm 18032, 3rd part)

Pos 1

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 200 mm centres (type D9) or maximum 400 mm centres (D12), or maximum 200mm centres (A12), at 90 degrees to the direction of the Creawood® slats. This method allows the edges of adjacent panels to rest against a batten. The structure must be perfectly level. Creawood® slats are stapled to the structure through the edge grooving or with special fixing clips on each batten.

Pos 2

see above

Installation of a ceiling system for ball impact resistance (according to DIN Norm 18032, 3rd part)

Pos 1

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 200 mm centres (type D9) or maximum 400 mm centres (D12), or maximum 200mm centres (A12), at 90 degrees to the direction of the Creawood® slats. This method allows the edges of adjacent panels to rest against a batten. The structure must be perfectly level. Creawood® slats are stapled to the structure through the edge grooving or with special fixing clips on each batten.

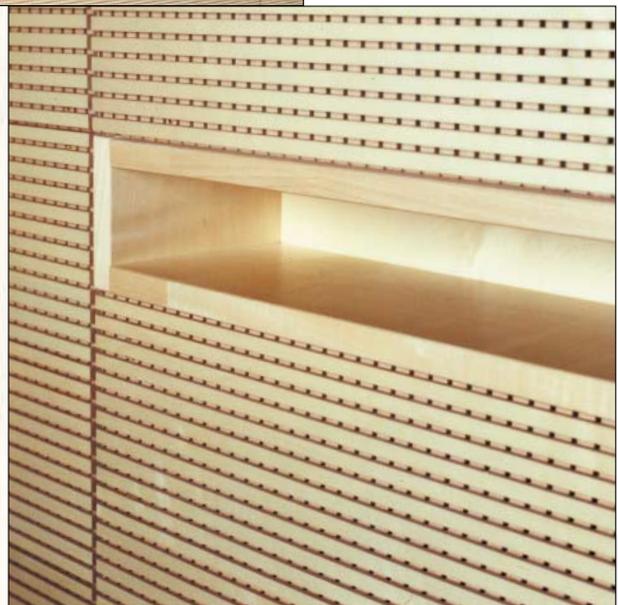
Pos 2

see above

Highschool Rosenheim, D – Rosenheim



University Mannheim, D – Mannheim



University Mannheim, D – Mannheim

References

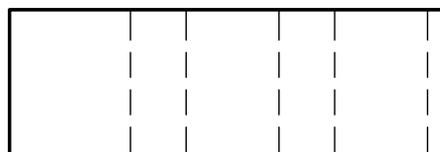
- **China:** North Point Church, Hong Kong
UBS Office, Hong Kong
- **Germany:** Hospital Deggendorf, Deggendorf
University, Auditorium and laboratory building, Mannheim
Highschool, Rosenheim
- **France:** Military Academy, Amphitheatre Desvallières Bourcet, Paris
University, Strasbourg
ZAC Métro, Asnières
- **Korea:** Castle Peak Hospital, Poongjin Interior Design Inc, Seoul
- **Taiwan:** Chung Shan Hall, Taipei
- **United Arab Emirates:** Heritage Theatre, Abu Dhabi



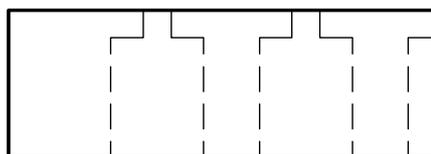
Military Academy, Amphitheatre Desvallières Bourcet, F – Paris



Military Academy, Amphitheatre Desvallières Bourcet, F – Paris



Tavaperf with parallel cross perforation

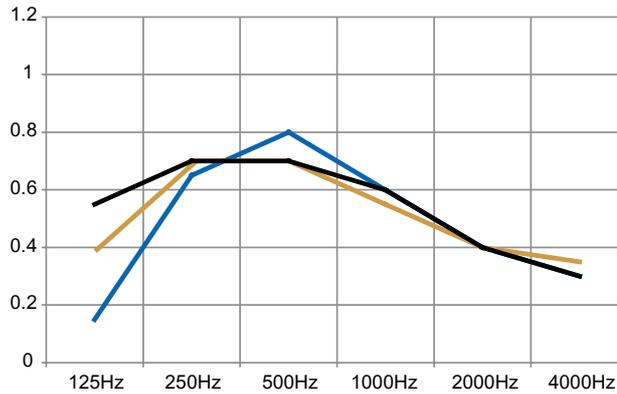


Tavaperf perforated in rows
(front side 3/5 mm, back side 10/12 mm)

Sound absorption data

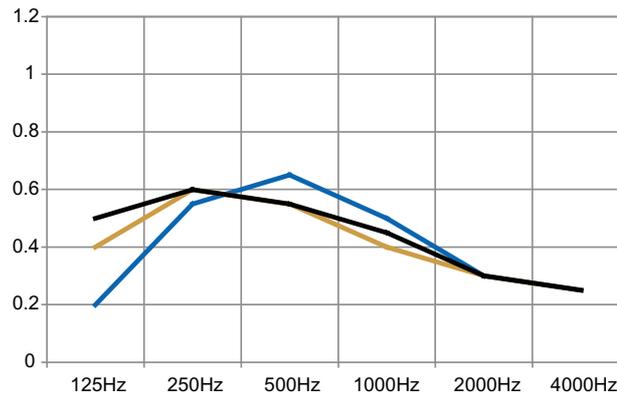
TAVAPERF 32/32 - 10

- 32/32 - 10,
Air space behind panel
47mm, Iso. 30mm
- 32/32 - 10,
Air space behind panel
200mm, Iso. 30mm
- 32/32 - 10,
Air space behind panel
300mm, Iso. 30mm



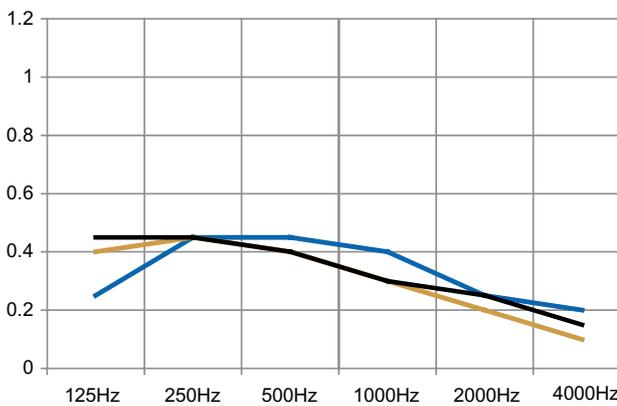
TAVAPERF 32/32 - 8

- 32/32 - 8,
Air space behind panel
47mm, Iso. 30mm
- 32/32 - 8,
Air space behind panel
200mm, Iso. 30mm
- 32/32 - 8,
Air space behind panel
300mm, Iso. 30mm



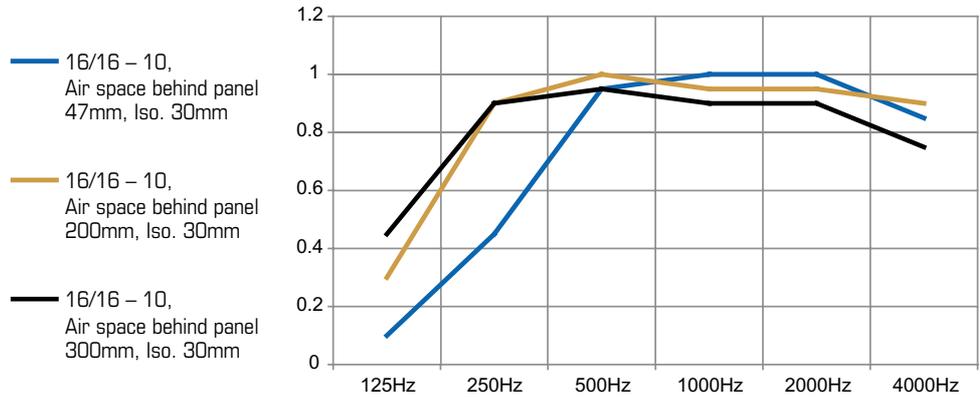
TAVAPERF 32/32 - 6

- 32/32 - 6,
Air space behind panel
47mm, Iso. 30mm
- 32/32 - 6,
Air space behind panel
200mm, Iso. 30mm
- 32/32 - 6,
Air space behind panel
300mm, Iso. 30mm

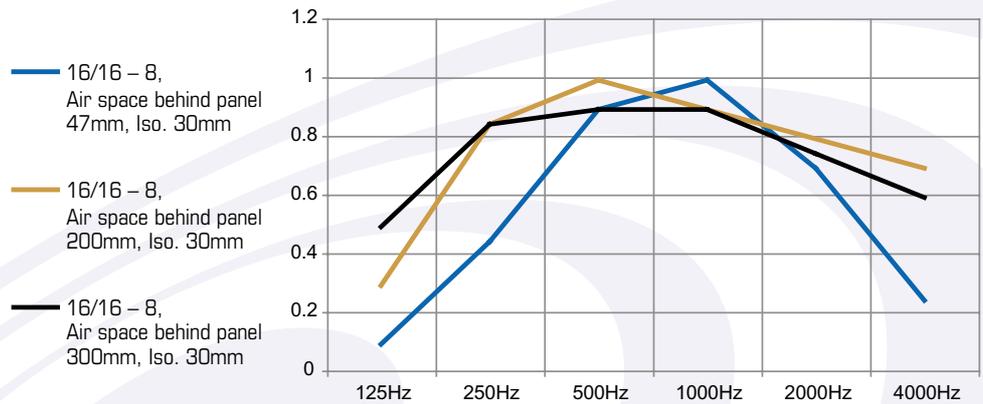




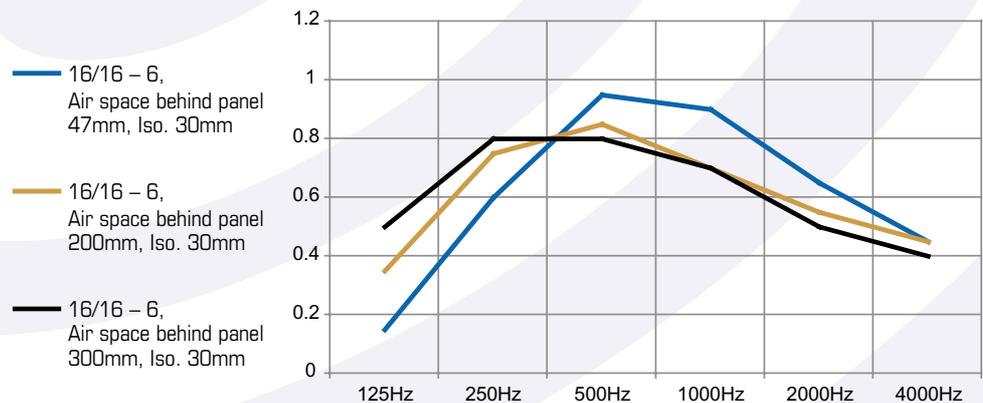
TAVAPERF 16/16 - 10



TAVAPERF 16/16 - 8



TAVAPERF 16/16 - 6



SPECIFICATION TEXT FOR TAVAPERF

Fixing to wall surfaces

Pos 1

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 500 mm centres, parallel to the panels. This method allows the edges of adjacent panels to rest against a batten. The structure must be perfectly level. Tavaperf panels are screwed through the half depth perforations to the structure.

Pos 2

Cladding with Tavaperf perforated acoustic panels Perforation centres 32/32 or 16/16mm, wood veneered..... thick mm type, fixed to the structure as previously described. Support panel in (kind of support panel, B1 only with MDF support panel, A2 possible only with minerally bound support panel). Tavaperf elements to be fixed by appropriate screws through the blind borings on the down construction or mounted by a suitable mounting system.

Fixing direct to ceilings without suspension

Pos 1

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 500 mm centres, parallel to the panels. This method allows the edges of adjacent panels to rest against a batten. The structure must be perfectly level. Tavaperf panels are screwed through the half depth perforations to the structure.

Pos 2

see above

Fixing to suspended ceilings

Pos 1

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 500 mm centres, parallel to the panels, to a proprietary metal sub-grid system. This method allows the edges of adjacent slats to rest against a batten. The structure must be perfectly level, Tavaperf panels are screwed through the half depth perforations to the structure.

Pos 2

see above

Installation of a wall system for ball impact resistance according to DIN 18032, part. 3

Pos 1

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 500 mm centres, parallel to the panels. This method allows the edges of adjacent panels to rest against a batten. The structure must be perfectly level. Tavaperf panels are screwed through the half depth perforations to the structure.

Pos 2

see above

Installation of a ceiling system for ball impact resistance according to DIN 18032, part. 3

Pos 1

Fix a structure comprising 24 x 48 mm planed softwood battens at maximum 500 mm centres, parallel to the panels. This method allows the edges of adjacent panels to rest against a batten. The structure must be perfectly level. Tavaperf panels are screwed through the half depth perforations to the structure.

Pos 2

see above

References

- **Germany:** Winzerhof, Nordheim
- **Switzerland:** Primary School, Sports hall, Plan-Conthey
Professional School Yverdon, CH – Yverdon
- **France:** Dassault Aerospace, St.-Cloud
Registration Studios, Fleury Merogis
LVMH, Offices, Boulogne sur Seine
Library, Villemomble
- **Israel:** Herzelia University
Hamizrahi Yahud Bank
Phonix Insurance
Scania, Colmobil



Professional School Yverdon, CH – Yverdon



School Sports hall Conthey, CH – Conthey

School Sports hall Conthey, CH – Conthey



School Sports hall Conthey,
CH – Conthey



UBS Hongkong, Hongkong

Information to Tavapan Wooddesign acoustic products

Fire protection: In certain applications of high temperatures special panel supports should be used

Fireclass: German DIN Norm B2: CH 4.3
Germany/Switzerland: German DIN Norm B1: CH 5.3
 German DIN Norm A2: CH 6q.3

There will only panels be used which comply with the European emission values E1.

Stability: Our panels are made from hygroscopic materials. Their humidity is determined by the environment in which they are used. The variation of humidity and their surroundings will affect expansion and contraction of these wood based panels. Their installation should not be undertaken in rooms with an humidity level in excess of 70%. We recommend that Tavapan Wooddesign panels are acclimatised in the room of installation 2 to 3 days beforehand. The acoustic panels should be protected against humidity and water.

It is imperative to take account of these facts at the time of the panel installation

Colour Variations: The natural or black core MDF panels are produced industrially. It is possible there will be slight colour variations even including those in the same delivery. The finishing lacquer may accentuate these colour variations.

Finishing: All Tavapan Wooddesign panels can be veneered with most timber species. To obtain the best possible match of colour and grain, this process is undertaken individually. With all of our veneered panels, the natural variations of colour and grain inherent in timber products will be found. It is possible for the client to make their own selection of the required veneers.

Sports Halls: Tavapan Wooddesign products have been tested by The Institute Otto Graf of the University of Stuttgart for their resistance to ball impact according to DIN 18032.



Mortuary Brugg, CH – Brugg



Tavaperf, Professional School Yverdon, CH – Yverdon



Tavaperf, Dassault Aerospace,
F – St. Cloud



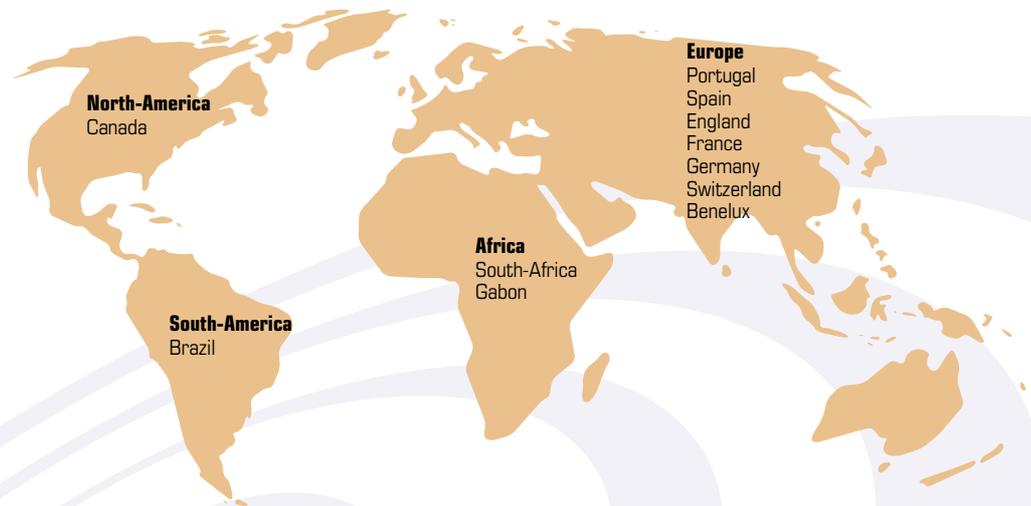
Dewetron® St. Chrischona Pilgermission, CH – Basle

SERVICE FROM TAVAPAN

Visit our homepage www.tavapan.ch. Here you find all absorption measuring values, all certificates of ball throwing security checks as well as many other interesting informations and links.

We are at your service to provide information and help you with the choice of finishes for your building. We will be very pleased to produce samples of your choice, without charge.

Use this service!



With our production sites on 3 continents, our mother company, SONAE Industria is one of the largest world producers of high tech wood based products.

With our products you can fulfil your ideas!



A company of the group





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