



Wood Panels

HunterDouglas

CEILINGS

Innovative Products make Innovative Projects



Above : Ceiling application
Product: Prestige®, Bamboo Caramel veneer, micro perforated
Project : BDO Accountants, the Netherlands



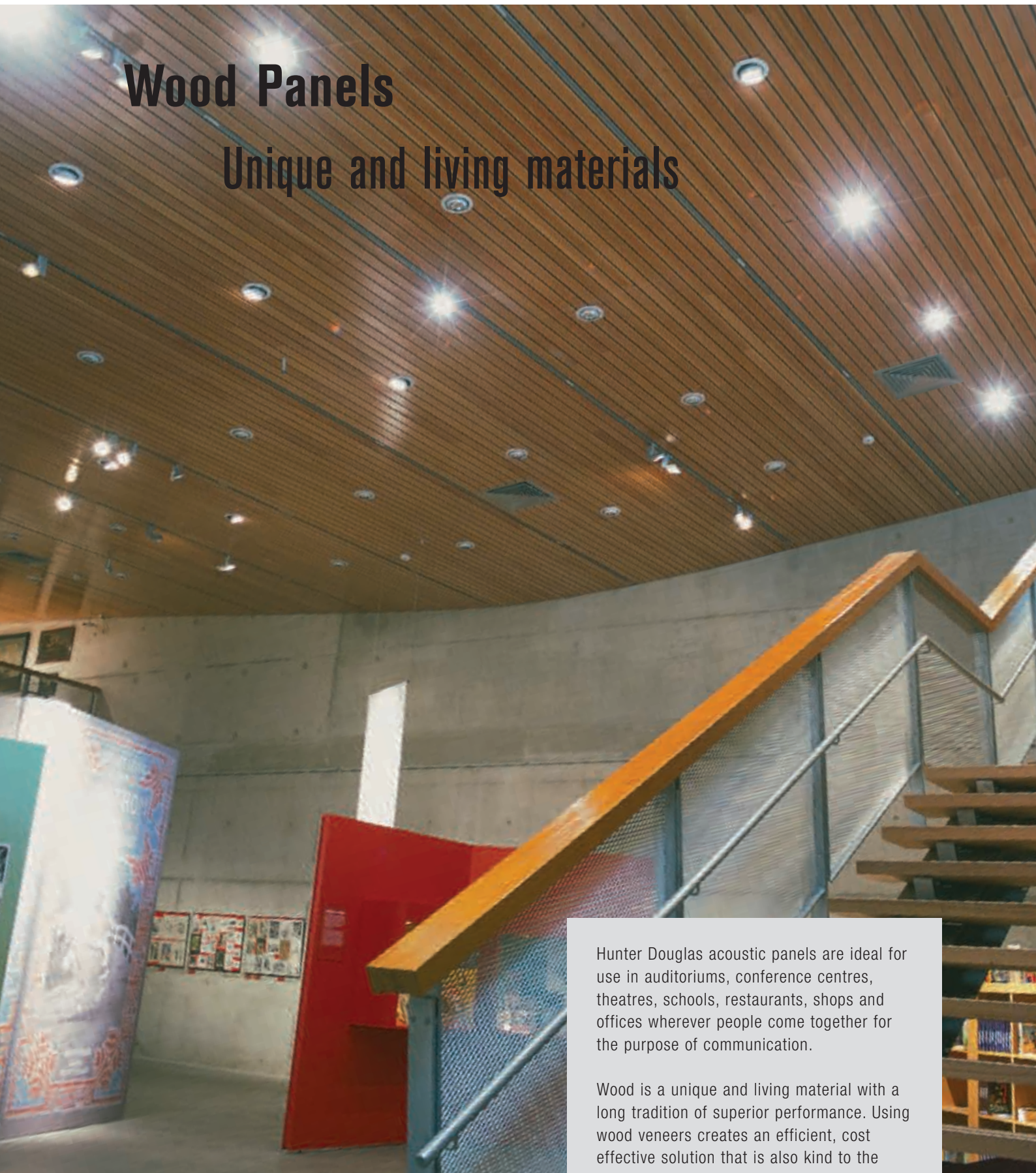
NATURAL BEAUTY FOR
CEILINGS AND WALLS

Wood Panels from Hunter Douglas are the ideal choice when designing ceilings and walls with a natural look. Design flexibility, outstanding acoustical performance, fire retardant properties and heat insulation creates enhanced interior comfort with a distinctive ambience for the building and occupants.

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Wood Panels

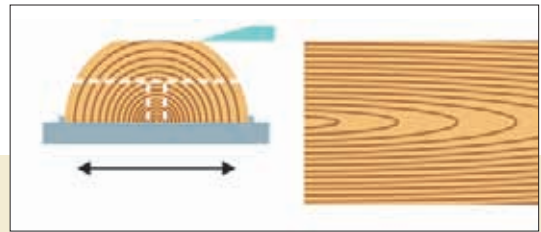
Unique and living materials



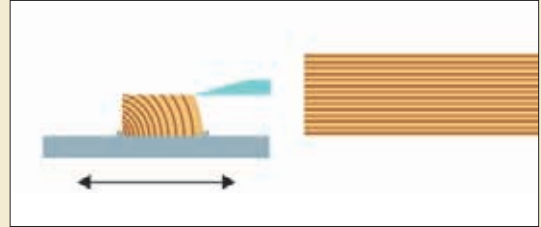
Hunter Douglas acoustic panels are ideal for use in auditoriums, conference centres, theatres, schools, restaurants, shops and offices wherever people come together for the purpose of communication.

Wood is a unique and living material with a long tradition of superior performance. Using wood veneers creates an efficient, cost effective solution that is also kind to the environment.

Below : Ceiling application
Product: System®, Beech veneer



Crown cut veneer



Quarter cut veneer

DESIGN WITH WOOD

The consistent look of the wood panels is created by careful selection of the species type, colour and structure to ensure a continuous pattern. The natural growth patterns of each tree can be clearly seen in the veneer, including natural characteristics such as notches and outgrowth. These qualities give Hunter Douglas Wood Panels the accent and character of the product as nature intended.

DURABILITY

Wood Panels are extremely durable, veneered on both sides with a low formaldehyde chipboard, MDF or plywood core. The wood used to create Hunter Douglas panels originate exclusively from reforestation areas so the production places no strain on the environment as waste materials are recycled and used to generate energy.

FIRE SAFETY

Wood Panels consist of a basic core with fire resistant qualities. Additional elements such as minerals and natural salts can be added during the manufacturing process to meet further safety requirements. For example; suspended ceilings filled with stone wool insulation combined with sprinkler systems increase this fire safety.

The maintenance free UV poly-acrylic varnish used in the production of Hunter Douglas panels is equally fire resistant; it will not melt but instead, insulates and contains the flame. Laboratory tests have shown that the acoustic panels increase safety in buildings in the event of a fire. Certification is available upon request.



Seen and not heard



SEEN AND NOT HEARD

Hunter Douglas Acoustic Wood Panels, have been developed by a team of acoustic engineers and designers. The acoustic qualities of each panel solution have been tested according to International Standards.

The natural elegance of wood combined with soundproofing, work together to create a restful, safe and comfortable atmosphere without compromising design.



Above : Ceiling application
Product: Standard®, Beech veneer
Project : Luxor theatre, the Netherlands



Left : Wall application
Product: Standard®, Oregon Pine veneer, red lacquered
Project : Luxor theatre, the Netherlands

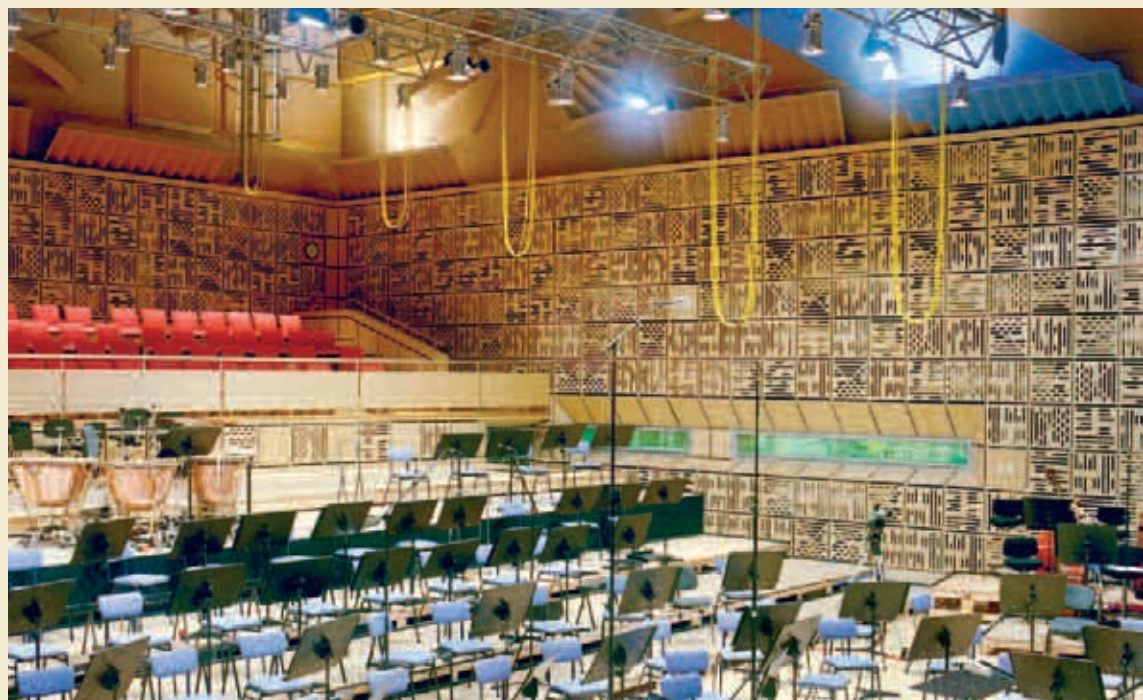
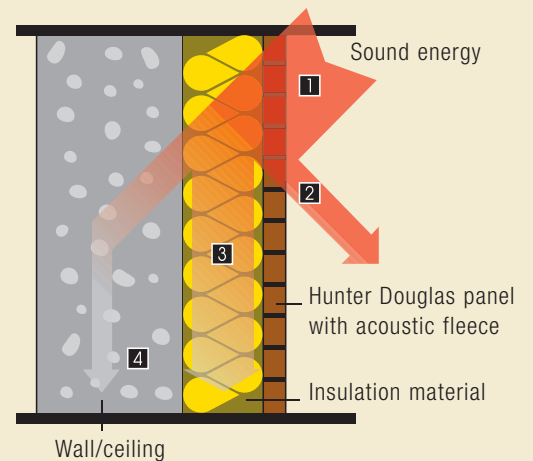
ACOUSTIC PERFORMANCE

Creating the right level of acoustic comfort is achieved when background noise has been dampened to the maximum without interfering the optimal transmission of speech at short distances.

Hunter Douglas Wood Panels take care of the desired acoustic level by absorbing and reflecting sound energy.

Vibrations cause an air mass to move and sound energy is thus created. Most of the sound energy (1) is able to pass through the panel openings and some is reflected (2).

The acoustic fleece and insulation material absorb the majority of the sound energy (3). The remaining energy is absorbed by the construction ceiling or wall (4).



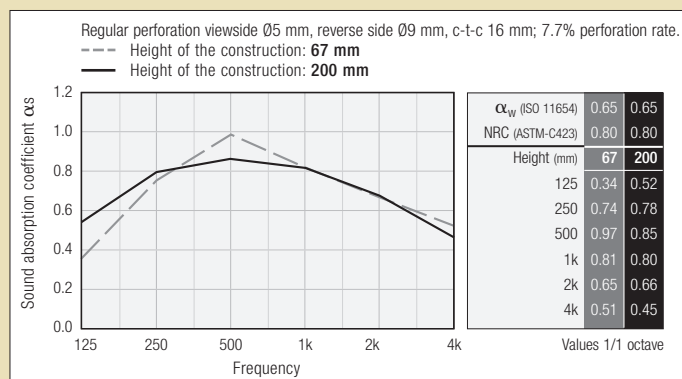
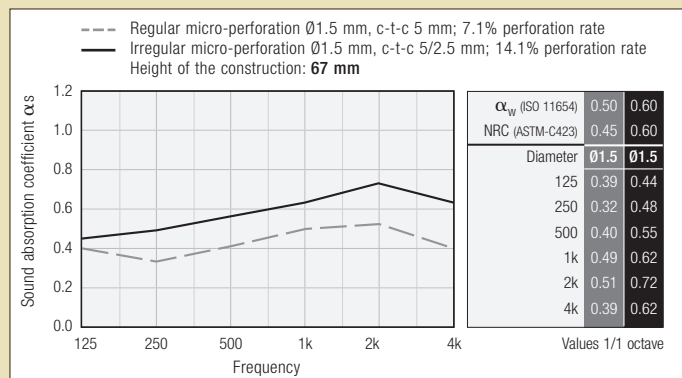
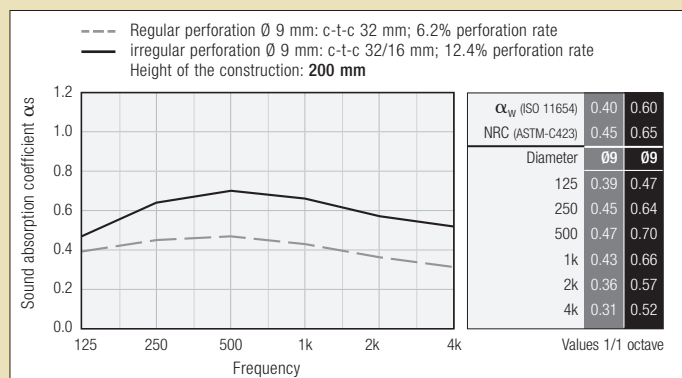
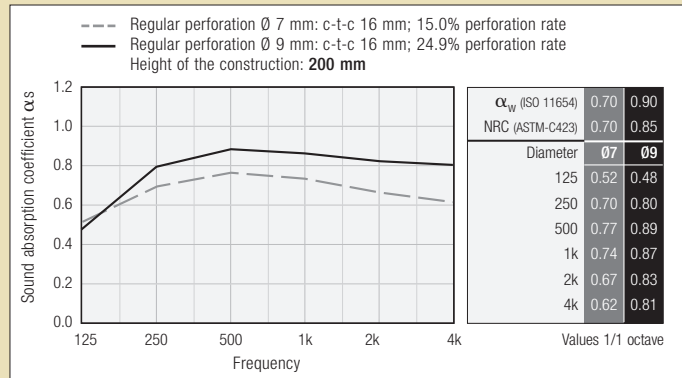
Above : Wall application
Product: Standard®, Ash veneer
Project : MCO Recording Studio, Concert hall, the Netherlands

ACOUSTIC DIAGRAMS

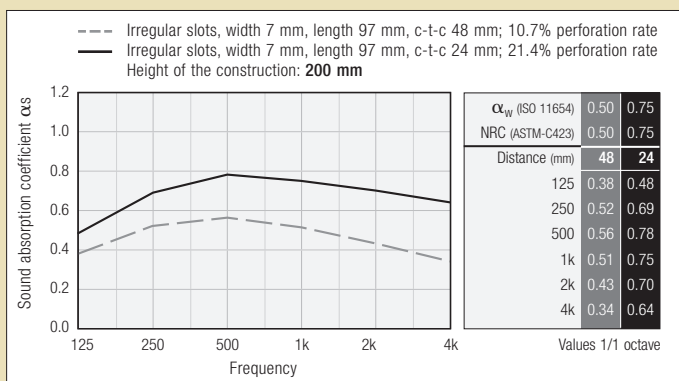
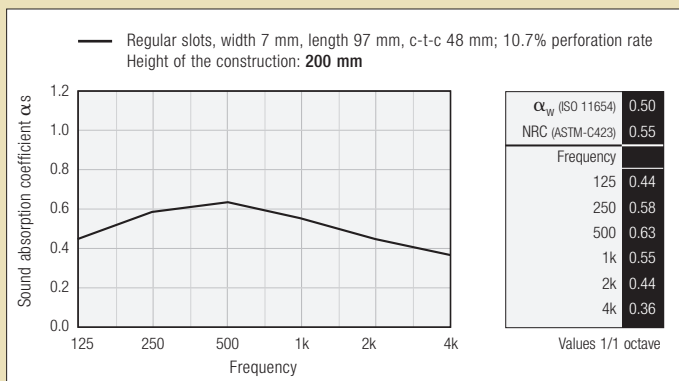
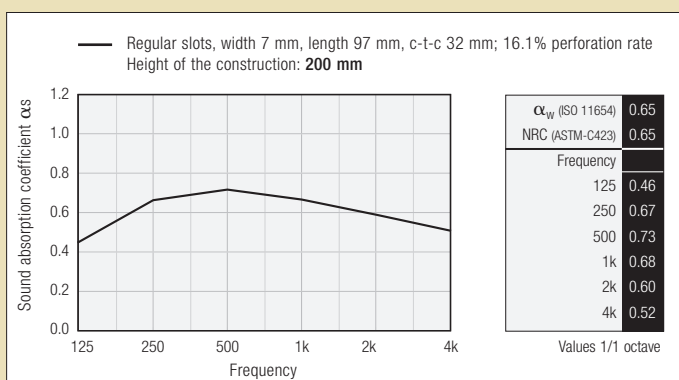
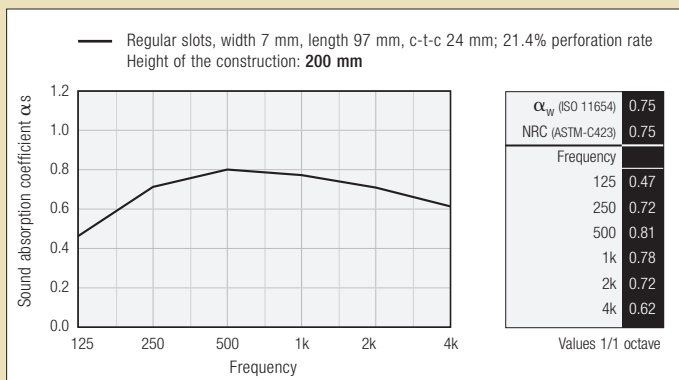
When sound absorption is measured, an Alfa value is attributed. The greater the value, the greater the absorption. The degree of sound absorption, denoted as an Alfa value, is influenced by the distance between the panel and the building wall or ceiling.

The panels have been tested, in combination with assorted insulation materials, at varying distances. The Alfa value of each panel type is shown in the diagrams. The average absorption values are also provided for comparative purposes.

The diagrams provide detailed information about the acoustic characteristics of each of the most frequently used models.



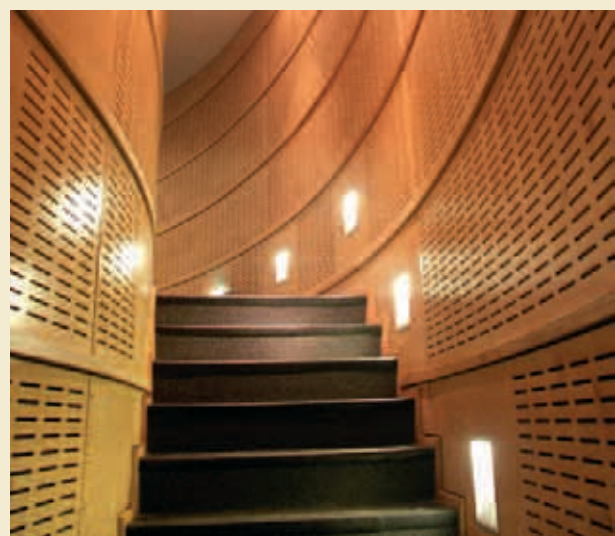
Above : Ceiling application
 Product: Classic®, Oak veneer
 Project : Schiphol Airport, the Netherlands



PEUTZ; LABORATORY FOR ACOUSTIC TESTING

With branches in the Netherlands, Germany, France and England, Peutz and Associates are the authority in the area of building physics, sound control and acoustics and conducted numerous tests on Hunter Douglas' acoustic panels including EN 20354:1993, ISO 11654 1997, ASTM C423 90a.

The tests were carried out on veneered and varnished panels, complete with perforation or groove patterns. On the reverse of each panel were an acoustic fleece and 50 mm stone wool with a density of 46.3 kg/m². The measurements and calculations were carried out in the 1/3 octave band with a bandwidth of 100-3000 hertz. The complete test reports are available for acoustic advisors upon request.



Above : Wall application
Product: Standard®, Beech veneer
Project : University of Amsterdam, the Netherlands



Classic[®], Modern[®], Prestige[®] and System[®] Easy Access

Hunter Douglas Wood Ceiling Panels, types Classic[®], Modern[®], Prestige[®] and System[®], create suspended ceiling systems which offer the space for utilities such as ventilation channels, electricity conduction and computer cabling.

The ceiling also serves to protect these installations and the building skeleton in the event of a fire.

Wood Panels are easy to demount to create access when utilities require maintenance and repairs.

The core of the ceiling panels consists of MDF, chipboard or plywood and can be assembled using visible, concealed or half concealed suspension systems. The attention to both the sizing and even edge finish ensures that individual panels can easily be removed from any location without causing damage.



Above : Ceiling application
Product: Modern®, Maple veneer

Below : Ceiling application
Product: System®, Birch veneer



CLASSIC® WOOD PANEL - ULTIMATE VERSATILITY

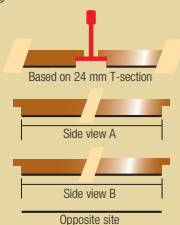
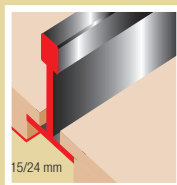
The preferred choice for architects and ceiling specialists, the Classic® panel can be erected on a carrying construction profile of T-15 mm or T-24 mm. The side finish with a 'drop in' rabbet fixes the panels and produces a relief effect and the carrying construction remains visible as a decorative function. Classic® wood panels are deliverable with a 'box grid' profile which makes it possible to attach billboards, signboards and other information boards to the ceiling. Once assembled the carrying construction and the visible side of the panels form an even surface.

MODERN® WOOD PANEL - SEMI CONCEALED AND REMOVABLE

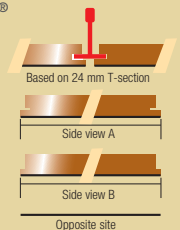
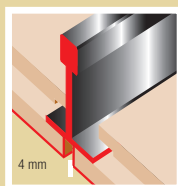
Due to the special edge detail, the panels show only 4 mm of the T-24 mm grid after assembly. Each panel can be easily removed downwards and allow full access to the plenum; a gentle push is all that's required!



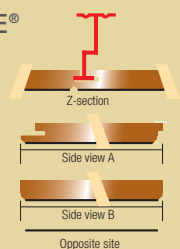
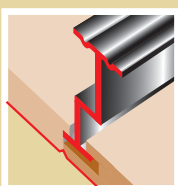
WOOD PANEL CLASSIC®



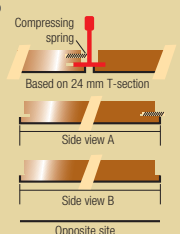
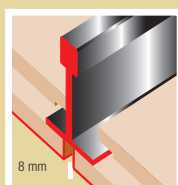
WOOD PANEL MODERN®



WOOD PANEL PRESTIGE®



WOOD PANEL SYSTEM®



PRESTIGE® WOOD PANEL - COMPLETELY INVISIBLE SUSPENSION CONSTRUCTION

Prestige® has a special edge finish that ensures the suspended ceiling requires no visible weight bearing construction. Every ceiling panel is invisibly joined and is removed by lifting and tilting. In order to achieve this, a minimum hanging distance of 100 mm is required.

The panels have a slanted edge finish, 'beveling', which creates a flat surface when mounted with a Z-profile and a special groove is made along the edge of the T-24 mm profiles, which enables the panels to be fitted together.

Right : Ceiling application
Product: Modern®, Beech veneer
Project : Korumaks Shopping Mall, Turkey



Left : Ceiling application
Product: Prestige®, Steamed Maple veneer
Project : Capital Tower, Dubai

SYSTEM® WOOD PANEL - THE IDEAL SOLUTION

Semi-concealed and fully removable ceiling panels provide complete access to the plenum. The use of springs enables the easy placement and removal of panels from below to access utilities. The unique edge working ensures a visible join of 8 mm between each panel. The result is a contrasting effect between the panels and the T-profiles. The 'Modern®' panel type is assembled using a carrying construction consisting of T-24 mm profiles.

Various panel sizes can be combined in one system and the spring system enables the panels to be used outdoors, where grill panels can be added in order to reduce wind pressure.

DESIGN WITHOUT BOUNDARIES

Based on a design specification, it is possible to veneer rectangular panels, create beveled edges on panels or to spray paint panels with a RAL colour. Square, rectangle and trapeze shaped panels are also possible. Perforations are used to improve the acoustics as well as to enable the seamless assembly of wall and ceiling constructions.



Standard[®] and Trend[®] Panels

Partly demountable



Veneered panels mounted on a wall create a space with a warm ambience with the natural design of the wood structure clearly visible.

In schools, open office spaces and existing buildings, Hunter Douglas Standard[®] and Trend[®] Wood Panels can be easily attached to the existing ceiling structure providing extra ceiling height where a suspended ceiling with access to facilities is not necessary.



Standard® and Trend® Wood Panels can be mounted directly onto a wooden infrastructure using screw clips. A hanging distance of about 50 mm is sufficient for this purpose. Assembly using a turn clip onto a metal omega profile, or T-24 mm profiles, is also possible. Perforation or groove patterns on the panels are combined with insulation with stone wool enhance greatly acoustics.

The core of the wall panels consists of MDF, chipboard or plywood and thanks to exact sizing, metal profiles, hanging brackets and screw clips, the panels can be assembled and removed very easily.

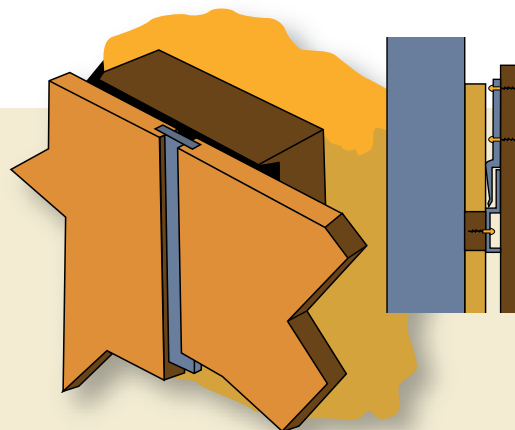
STANDARD® WOOD PANEL

Veneered Standard® Panels can be fitted with a melamine or veneered edge band. It is also possible to finish the panel with a solid edge strip or a plastic PVC edge band.

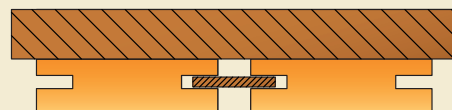
After assembly a distance of 5,10 or 20 mm is visible between the panels. Screw clips and connecting strips in the same wood type, or contrasting colour, are used for assembly.

TREND® WOOD PANEL

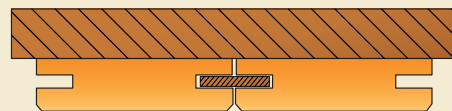
Veneered Trend® Panels are joined together using an MDF connecting strip and screw clip. After assembly only the beveled edge is visible. In this way, it is possible to 'bookmatch' the wood structure of each panel and ensure continuation. It is also possible to 'mismatch' the panels to provide a natural, variable wood art effect. On request these panels can be produced with an HPL laminate or RAL/NCS colour at the view side.



Mounting system



Wood Panel Standard®; open join



Wood Panel Trend®; beveled closed join



Right : Wall application
Product: Standard®, Birch veneer
Project : Atrium (semi-exterior application)

Soundtube®

Custom acoustics



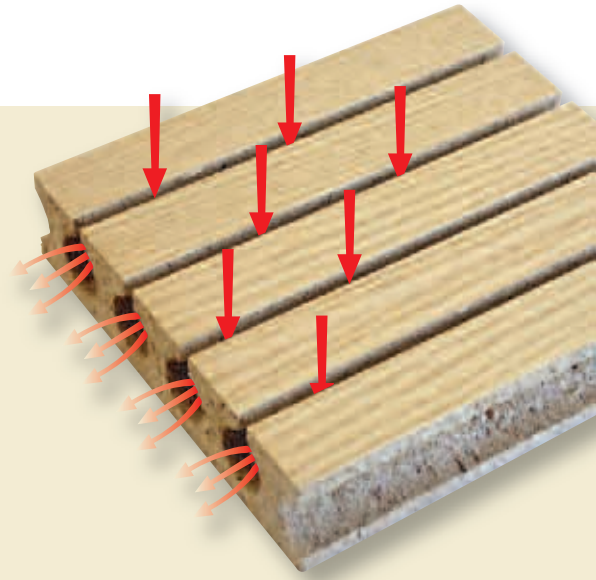
Soundtube® with its clean modern look reduces sound reverberation through the use of special acoustic channels.

By calculating the acoustic value, shape and measurement of the space plus the types of materials to be used, a complete design profile is created for every project for optimal sound absorption.

Soundtube enables you to design custom acoustic solutions with one system.

By creating extra channels on the reverse side of the panel you can design different acoustical measurements in multiple locations.

Sound energy is retained in the air mass within the channels and the open spaces between the wood fibers creating optimal absorption.



Retaining sound energy via channels



Above : Ceiling application
Product: Soundtube®, Pear veneer

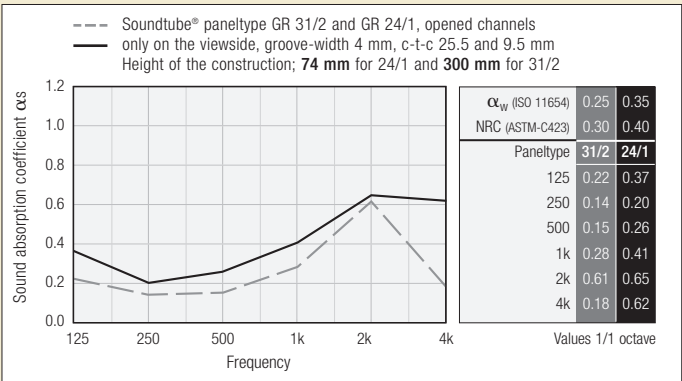
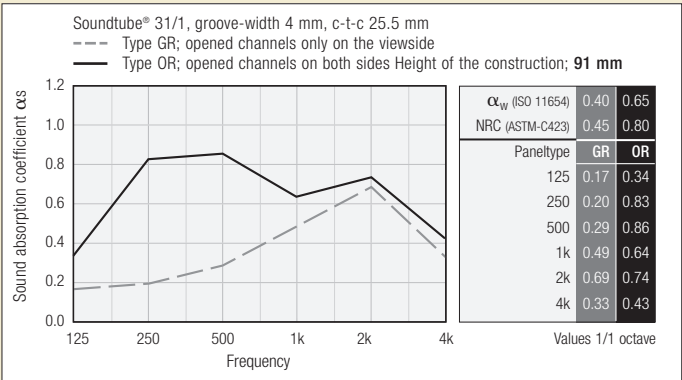
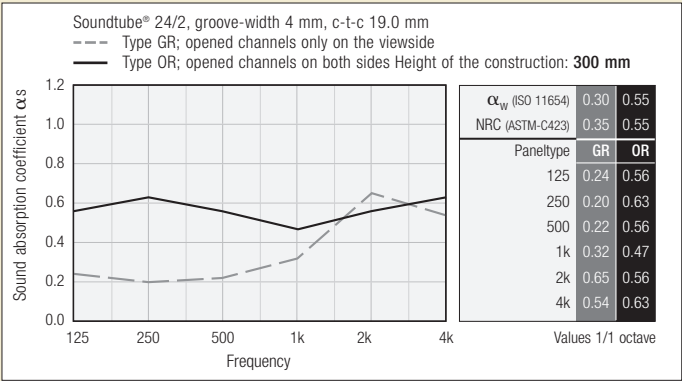


Above : Wall application
Product: Soundtube®, Birch veneer

SOUNDTUBE® - ACOUSTIC PERFORMANCE

Soundtube® Panels are produced in many different finishes with a range of standard acoustic performance levels or custom designs to meet your project specification. Due to the number of channels that can be opened in each panel, Soundtube® is highly flexible.

The diagrams provide detailed information about the acoustic characteristics of each of the most frequently used models. Further information is available on request.



Most of wood species are FSC certified

SOUNDTUBE® - EASY TO ASSEMBLE

Soundtube® Panels can be easily mounted onto a wooden substructure, consisting of planed wooden slats. The panels are attached to this substructure using glue and staples where a join of at least 4 mm along the length between the panels is advised. Due to the handy 'lap over lap' detail along the length of the panels, the panels appear to be invisibly joined together along the width.

Panels are varnished and ready to assemble upon delivery and have a moisture content of 10 - 12% which is in accordance with a relative humidity of 65% at 20 °C. Due to the unique method in which the woodchips are glued together the panels may not be exposed to moisture.

The mounting of Soundtube® Panels should be carried out by specialist installers.



Soundtube®, lap over lap connection for invisible join



*Above : Wall application
Product: Soundtube®, Cherry veneer*

Soundtube® 24/2

Soundtube® 31/1

Soundtube® 31/2

Soundtube® 24/1



Topline®

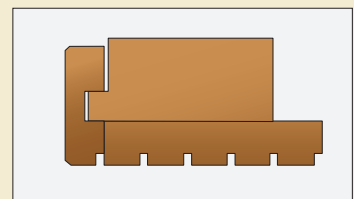
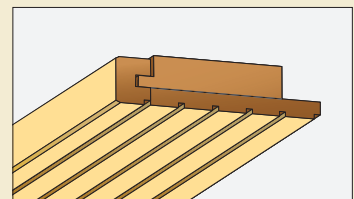
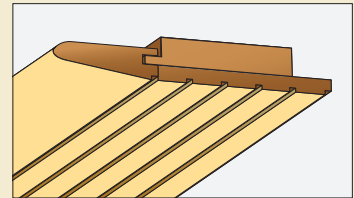
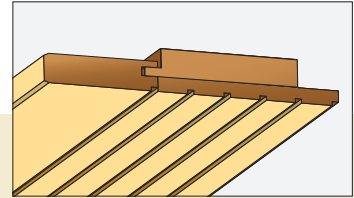
A la carte acoustics

Topline® is highly suitable for use on walls or as a suspended ceiling. Due to the innovative tongue and groove joints, it is possible to mount the panels onto a wooden infrastructure using nails or metal profile using turn clips.

Below : Wall application
Product: Topline®, Cherry veneer

In modern buildings the space above the ceiling often houses technical facilities. This means that the ceiling must be accessible. In the case of tongue and groove ceilings, inspection hatches at fixed places permit access to plenum. Topline® is on request available in individual removable panels.

The Topline® model, finished with a decorative groove pattern on the visible side and a groove/perforation pattern on the reverse, is available in several designs and also comes as a Wood Ceiling Panels in the following types: Classic®, System®, Modern® and Prestige®. Wooden slats in various designs are available for edge finishing.



Various designs for edge finishing



Topline®, tongue and groove connection for invisible join

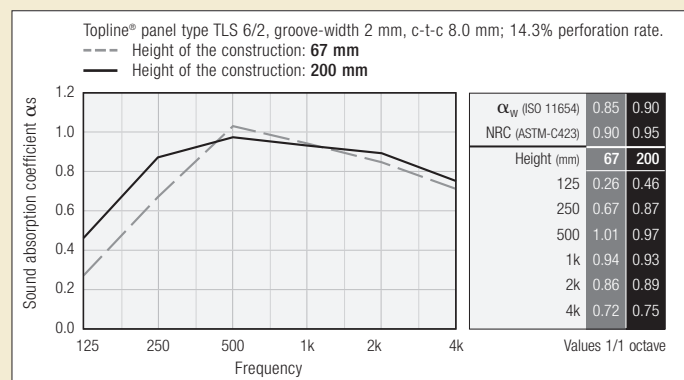
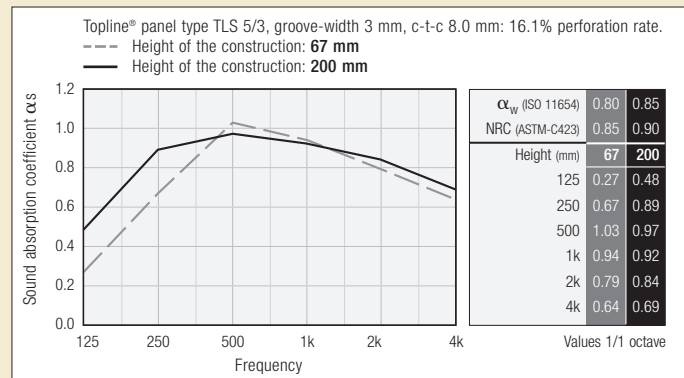


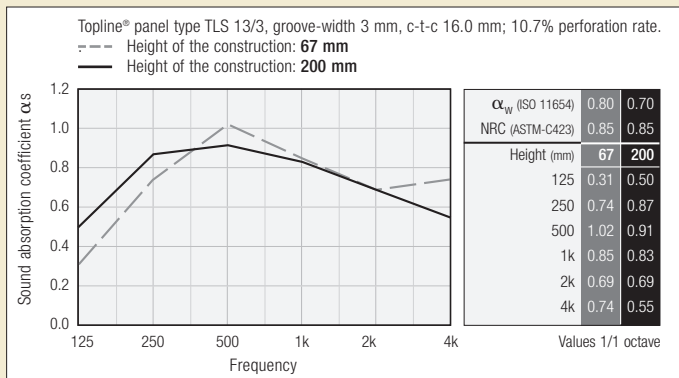
A LA CARTE ACOUSTICS

The core of Topline® panels consist of MDF in a natural light brown colour. The view side of the panel is finished to the architect's specification in veneer, HPL laminate or a RAL/NCS colour.

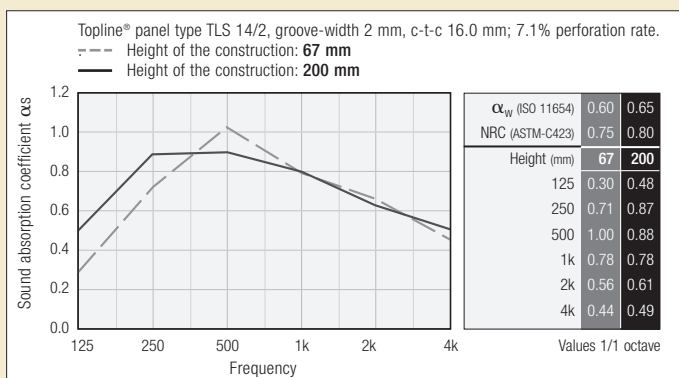
The acoustic specification is achieved through a unique milling and groove pattern combined with the use of an acoustic membrane. The design and acoustics for each project can be fully attuned by selecting the right model that will ensure sound energy is almost completely absorbed, or if necessary, reflected.

Diagrams provide detailed information about the acoustic characteristics of each of the most frequently used models.

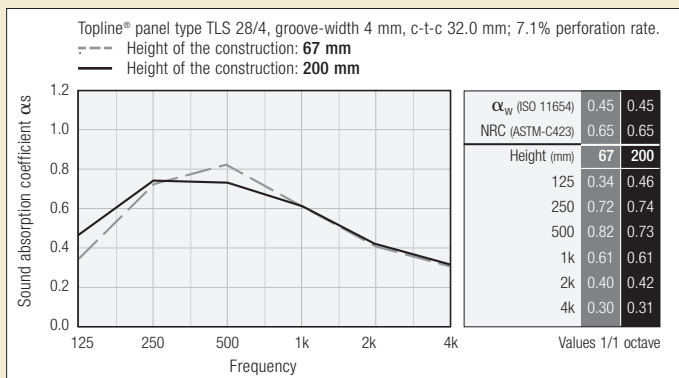




Topline® TLS 5/3



Topline® TLS 13/3



Topline® TLS 6/2

Topline® TLS 14/2



Topline® TLS 28/4

Left : Wall application
Product: Topline®, white lacquered

Specifications

CLASSIC®, MODERN®, PRESTIGE®, SYSTEM®, STANDARD®, TREND®

1. type (acoustic-) panel for interior and exterior use Classic®, Standard®, Trend®, Modern®, Prestige® and System®
2. core material: MDF - inflammable / moisture resistant / fire retardant.
Top layer wood veneer
3. top layer : A quality wood veneer
4. thickness (mm): 13 or 17
5. acoustics:
 - round perforation: regular or irregular pattern / round micro perforation: regular or irregular pattern
 - slot perforation: regular or irregular pattern
 - round perforation diameter (mm): 5, 7, 8 or 9 / round micro perforation diameter (mm): 1.5 / square perforation (mm): 5
 - round perforation, centre to centre distance (mm): 16, 32 or 64 / round micro perforation, centre to centre distance (mm): 5
 - square perforation, centre to centre distance (mm): 32 (perforation free border all around the panel of approximate 30 mm)
 - slot dimension (mm): 8 x 87, centre to centre distance (mm): 24, 32 or 48
6. panel finish: interior or exterior lacquered (no perforation)
7. acoustic fleece: colour black
8. mounting material: depending on execution

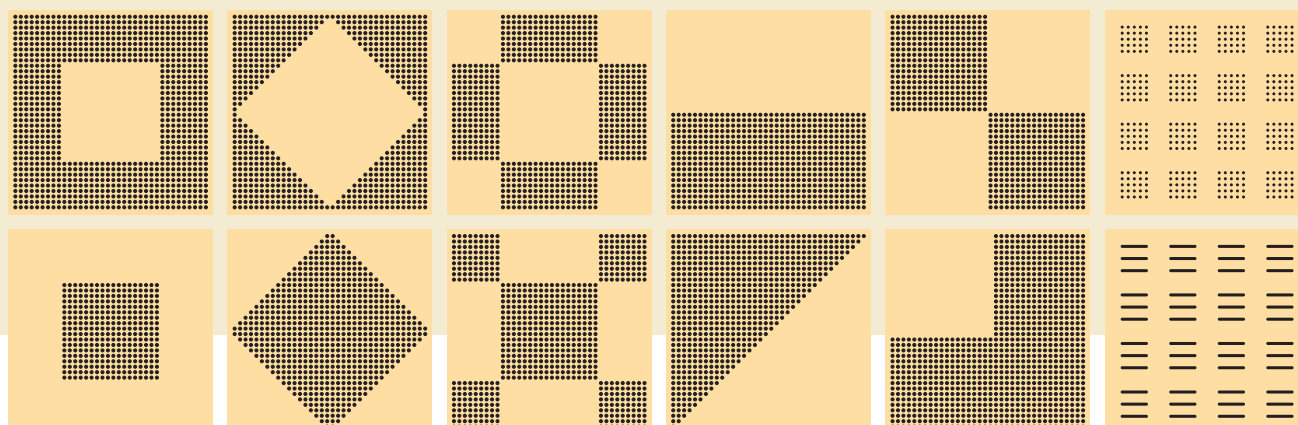
SOUNDTUBE®

1. type: acoustic panel for interior use Soundtube® GR 24, GR 31, OR 24, OR 31
2. core material: tubular chipboard-inflammable / fire retardant. Top layer wood veneer
3. top layer: A quality wood veneer
4. thickness (mm): 24 or 31
5. standard dimension (L x W in mm): 2600 / 2500 x 600 other dimensions on request
6. acoustics:
 - each channel opened on viewside: GR 31/1
 - every second channel opened on viewside: GR 24/2, GR 31/2
 - every fourth channel opened on viewside: GR 24/4, GR 31/4
 - every channel opened on viewside, reverse side opened by slotting: OR 31/1
 - every second channel opened on viewside, reverse side opened by slotting: OR 24/2, OR 31/2
 - every fourth channel opened on viewside, reverse side opened by slotting: OR 24/4, OR 31/4
7. panel finish: interior lacquered
8. mounting material: glue & staples

TOPLINE®

1. type: acoustic panel for interior and exterior use Topline® TLS 5/3, TLS 6/2, TLS 13/3, TLS 14/2, TLS 28/4, TLS 29/3
2. core material: MDF - inflammable / moisture resistant / fire retardant.
Top layer wood veneer
3. top layer: A quality wood veneer
4. thickness (mm): 17
5. standard dimensions (L x W in mm) 3030 x 128/288, 2780 x 128/288, 2420 x 128/288, other dimensions on request
6. panel finish: interior or exterior lacquered
7. acoustic fleece: colour black
8. mounting material: nail clip & wooden construction or turning clip & omega profiles

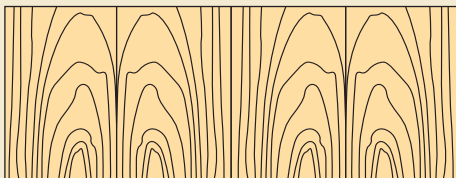
SIZE L X W (mm)	CLASSIC®	MODERN®	PRESTIGE®	STANDARD®	TREND®
600/1200 x 600	X	X	X	X	X
1200 x 300	X	X	X	-	-
1500 x 600	X	X	X	X	X
2420 x 290/600	-	-	-	X	X
2420 x 115/190/240	-	-	-	X	-



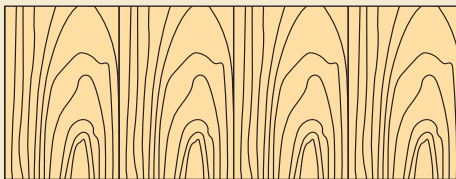
Perforation patterns

VENEER: ENVIRONMENTALLY FRIENDLY

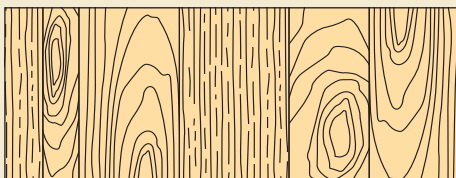
Hunter Douglas only works with veneer which originates from controlled reforestation areas. Wood is used efficiently in the production of veneer as modern production methods ensure that around 800-1000 m² of veneer can be produced from 1 m³ of wood. Veneer sheets with a width of 10-25 cm are book-matched and glued to form panels. Upon request it is also possible to slip-match or mis-match sheets. Wood veneers are highly suitable for wall and ceiling application.



Book-matched



Slip-matched



Mis-matched

MOSAIC AND MICRO PERFORATION

Acoustic perforations of Ø5, Ø7, Ø8 or Ø9 mm with a centre to centre distance (ctc) of 16, 32 or 64 mm are also suitable for mosaic patterns. Various patterns can be used together to form a unique design.

The acoustic grooves of 7 or 9 mm with a centre to centre distance (ctc) of 24, 32 or 48 mm inspire unusual combinations. The panels can be placed perpendicularly to one another creating a distinctive pattern.

WOOD SPECIES



Birch



Steamed Beech



Limewood



Oak



Ash



Chestnut



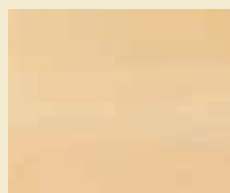
Cherry



Maple



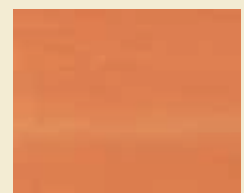
Mahogany



Sycamore

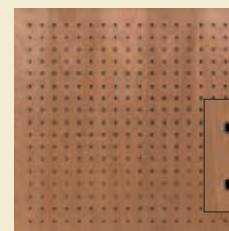
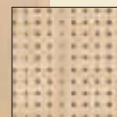
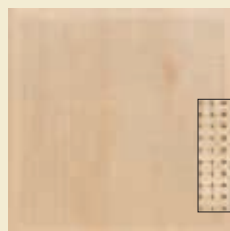


Anigre



Pearwood

Other wood specie on request



A whole new perception is created by using micro perforations. Perforations of only Ø1.5 mm, ctc 8 mm, enable the structure of the veneer to remain completely visible while at the same time providing effective sound absorption. Square perforations with a ctc distance of 32 mm are also extremely innovative.

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In the last 80 years, we've been fortunate enough to help turn countless innovative sketches into innovative buildings.



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We support our business partners with a wide range of technical consulting and support services for architects, developers and installers. We assist architects and developers with recommendations regarding materials, shapes and dimensions and colours and finishes. We also help creating design proposals, visualisations and mounting drawings. Our services to installers range from providing detailed installation drawings and instructions to training installers and advising on the building site.



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HUNTER DOUGLAS is a publicly traded company with activities in more than 100 countries with over 150 companies.

The origin of our company goes back to 1919, in Düsseldorf, Germany. Throughout our history, we have introduced innovations that have shaped the industry, from the invention of the continuous aluminium caster, to the creation of the first aluminium Venetian Blinds, to the development of the latest high-quality building products.

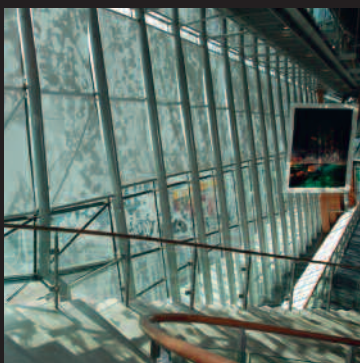
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