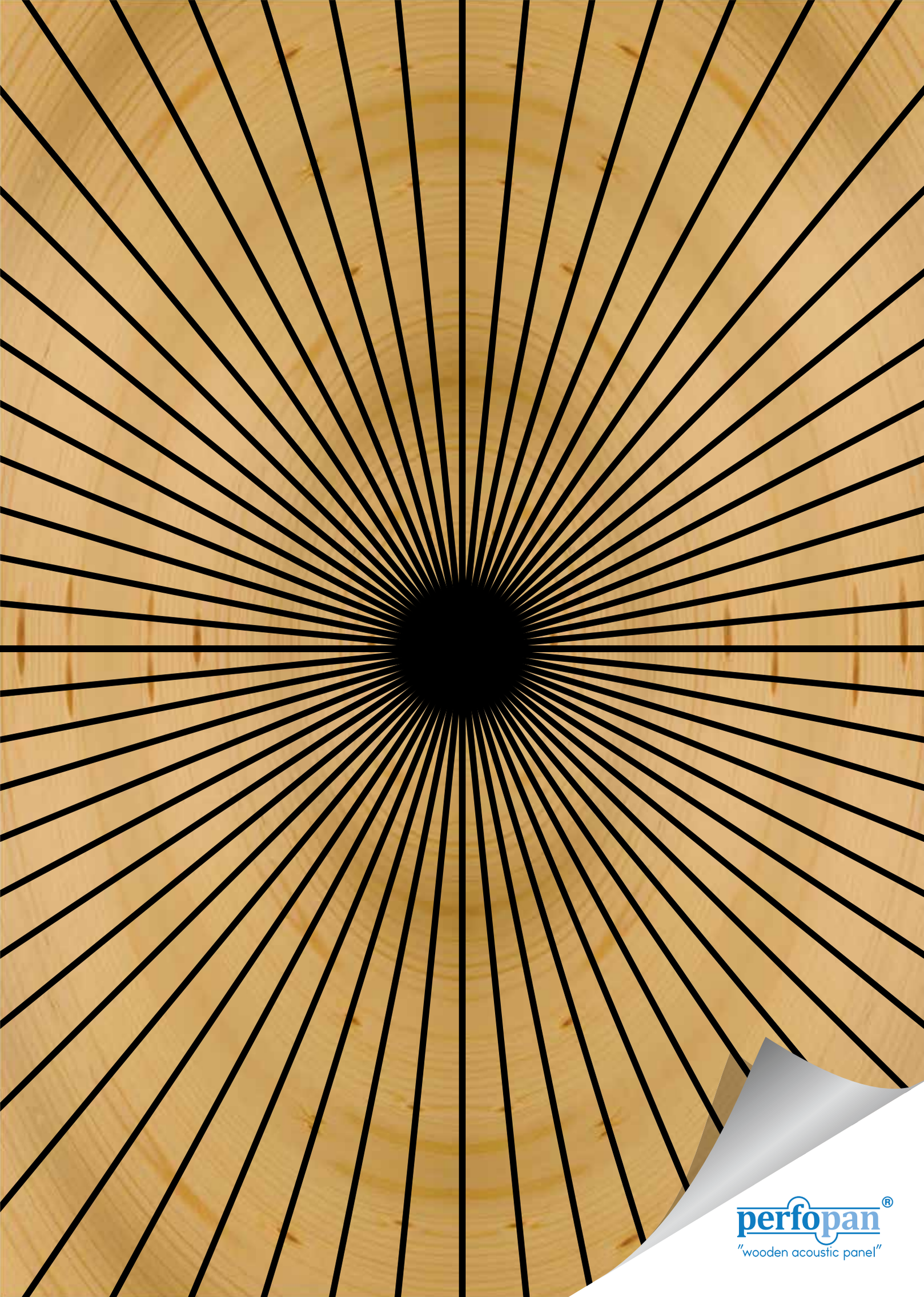

perfopan®
"wooden acoustic panel"

perfopan®

"wooden acoustic panel"

www.perfopan.com

Profile

As the pioneer manufacturer of wooden acoustic panel in Turkey, Perfopan has been manufacturing acoustic wall and ceiling panels, acoustic sound insulation doors and has been serving in the building sector since 2005.

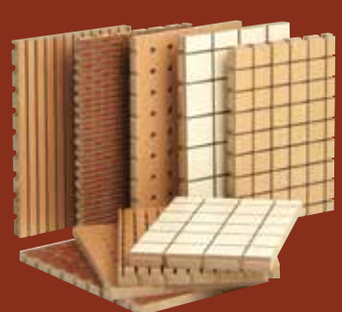
Perfopan combines its experiences of work, manufacture and tender, acquired since 1932, in wooden acoustic manufacture and has been working internationally with its experienced engineers and architects.

Our company's production is maintained by sensitive and state of art technological CNC machines which have been imported specially, and international (EN ISO -140EN ISO 717)
(EN ISO 354) accredited resonance test certificates are approved for its entire acoustic products.

Customers are rendered pre-manufacture necessary project design services and comprehensible solutions are being offered accordingly, furthermore the best acoustic performance is enabled to be reached at the location where relevant application shall be made.

Our company has an annual acoustic wall and ceiling panel production capacity of 200.000 m^2, whereas the insulation doors capacity is 4500 pieces.

85 Years Experience



As a trade mark of **AKTAN MOBİLYA** established in 1932 as a family corporation, Perfopan has been sustaining its family tradition under the name of ISUS 1932 company and proceeding on its way in wooden sector.

History

Our main company **AKTAN FURNITURE** FACTORY **(Aktan Mobilya)** has been established by our grandfather Mehmet Ismet AKTAN three generations ago in 1932.

At that time, the joinery and wood works of the first train station of Ankara which was built by the German companies in Ulus, Ankara were performed and the first step was taken to the wood sector. Also, the wood works of various ministry buildings, the newly built T.B.M.M. Building, the Medical Faculty and the special hospital in Ankara were accomplished in those years.

Aktan Mobilya has selected manufacturing as the main sector within the 80-year time interval since 1932. Aktan Mobilya operating as a family corporation started acoustic wood panel production in 2005 for the first time with its young and dynamic engineer and architect staff as well as its business experience, manufacturing experience and tendering experience.

In 2006, M. Ergin Aktan gave the trademark PERFOPAN to Aktan Mobilya.

We would like to express our gratitudes to our dear father **M. Ergin AKTAN**.

Establishmen years of our company

Index

Invisible Architecture Of Sound

Architectural projects which has excellent values acoustically from past to present are deemed to be an art work. In order to be capable of creating a successful piece of art, the voices should be clear and should appeal to the feeling of the listeners. In recent years, the architectural acoustic awareness has increased and became a specific issue needed in indoor areas. Architectural design and acoustics' architectural process are executed together and structures are constructed according to acoustic functions.

In order to create acoustically excellent places, architectural forms are required to be covered by good acoustic elements and this provides to have better acoustic performance quality. Our company produce special products which appeal to architectural visibility and acoustics.

Ottoman Prime Ministory Archives Building
Auditorium
Project: Hassa Architecture
İstanbul 2013

In the projects in which our products are available, the excellent compliance of the aesthetic and acoustic with our wooden panels brings the people's hearing quality to the top thus acoustic comfort is enabled accordingly.
Excellent compliance of estetics and acoustic with our wooden panels provides best hearing quality thus acoustic comfort is enabled accordingly.We hereby would like to express our gratitude to the architects for prefering to use our internationally certified perfopan wooden acoustic panels in their free designs which provides excellent acoustic necessities for best quality hearing.

SURFACE COATING
Natural Veneer Samples

Natural veneers are obtained by being cut from wooden logs. The amount of covering to be received corresponds to the product obtained from the log, in relation with the size of the log. Due to its naturalness and as its own core pattern and color comes out from each log, there exists texture and tone differences at wooden surfaces. For this reason, our company which is specialized on wall and ceiling modulation works in the basis of project in order to prevent tone difference on the facades and classifies its products facade by facade thus it can minimize the tone and design differences.


Maple


Ash


American Oak


Crown Cut Oak


Rift Cut Oak


Beech


Teak


Cherry


Sapelli


Mahogany


Walnut


Wenge

As the natural coatings are produced from trees, the sizes of the panels may differ according to the project.
Please consult Perfopan Technical Staff for the size of the natural coatings to be used in your project.

SURFACE COATING
Dantela Veneer Samples

Dantela veneers are produced upon the painting of wooden fibers with special techniques as the fibers are restructured. Milling cutter and moiré models are the copies of each other at each sheet. Thus, more homogeneous and regular wooden textures are created. Dantela veneers are applied to the boards upon natural wood siding technique . Following the siding, they are applied three layers of filing by the polishing machine, whereas the last layer is applied mate or brilliant polishing .


Crown Cut Maple


Rift Cut Maple


Crown Cut Limy Oak


Rift Cut Limy Oak


Bamboo


Bird Eye


Teak Root


Teak


Crown Cut Oak


Rift Cut Oak


Cherry


Sapelli


Rift Cut Walnut


Crown Cut Walnut


Ebony


Wenge

SURFACE COATING

Mdflam Coating

Ready made mdflam-melamine surfaced panels are being introduced to our customers within the scope of fast production and with their wide range of economic items. Our company is capable of processing mdflam-melamine ready made surfaced panels of all trademarks produced in our country and may put them on the market.
As a stock capability for the preparation of materials for urgent orders, beech -maple-bamboo mdflam panels are available at our factory.


Maple


Beech


Oak


Bamboo


Pear


Walnut


Olive


Metallic walnut


Cherry


Mahogany


Dark Cherry


Teak


Wenge

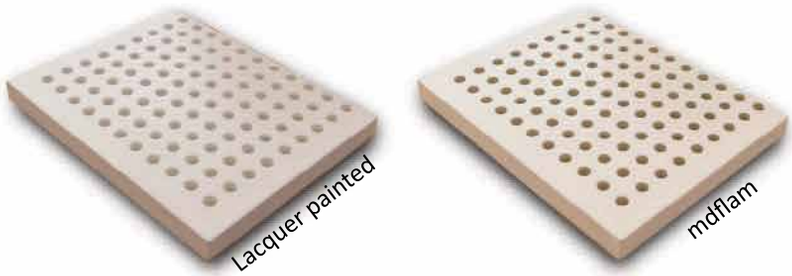

Grey

SURFACE COATING
Painted and Laminate Sheets

Lacquer Painted Surfaces

Panel surfaces may be painted as lacquer paint. According to your projects, colors you request are applicable with NCS or Ral codes. Hole or joint applications over the acoustic panel surfaces require that painting should be applied by special techniques.
Our company performs painting with special painting line. In lacquer painting technique, two types of surface brightness are applicable. Lacquer colors are applied by mate and bright surface technique. In places with intensive circulation, lacquer paints are applicable against your preferences which are resistant against scratch and impacts.

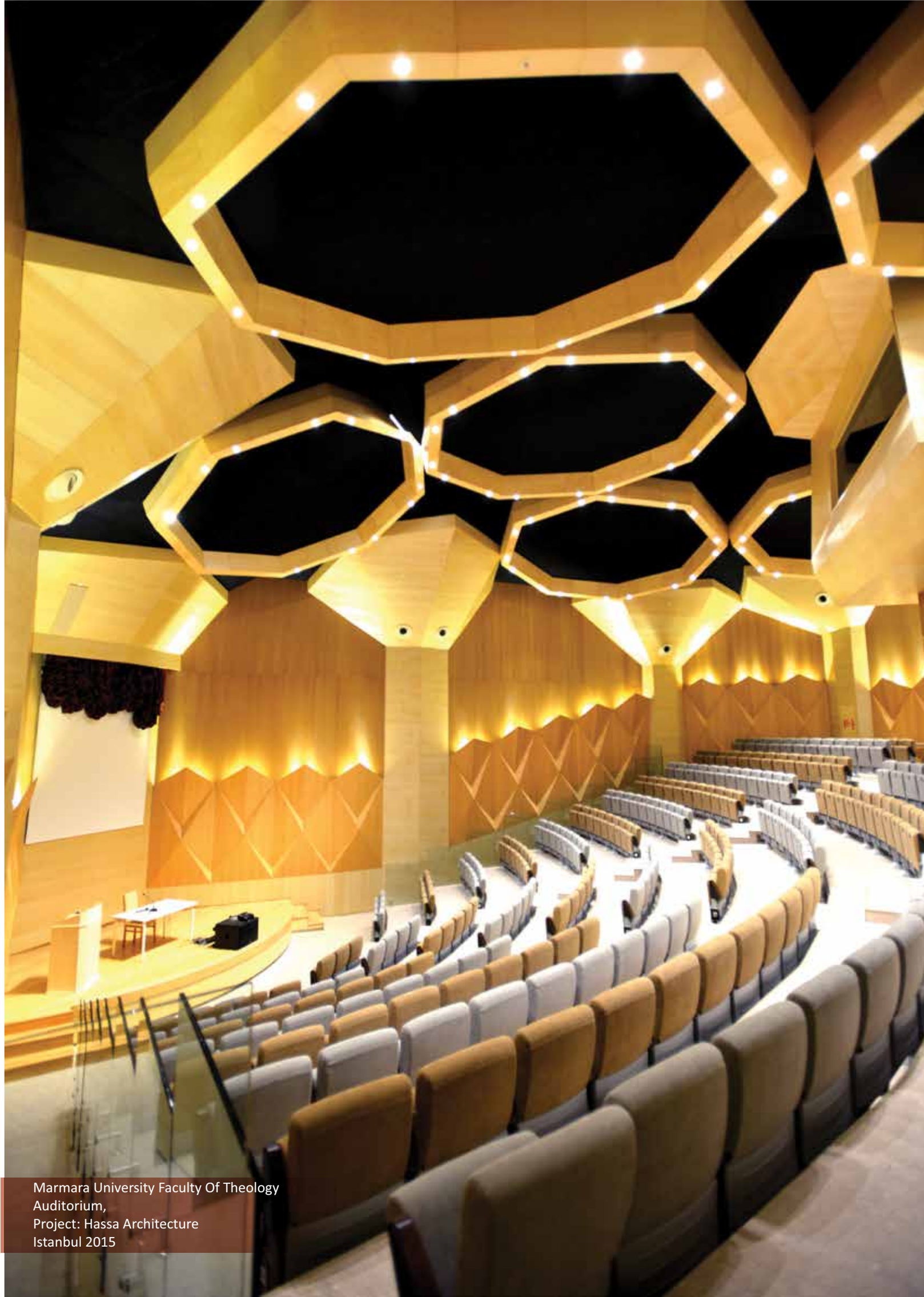
The advantageous side of the lacquer paint is that; the holes and joints over the painted surface have the same color. On the surfaces of panels which are not painted, internal panel mdf colors are seen obviously.



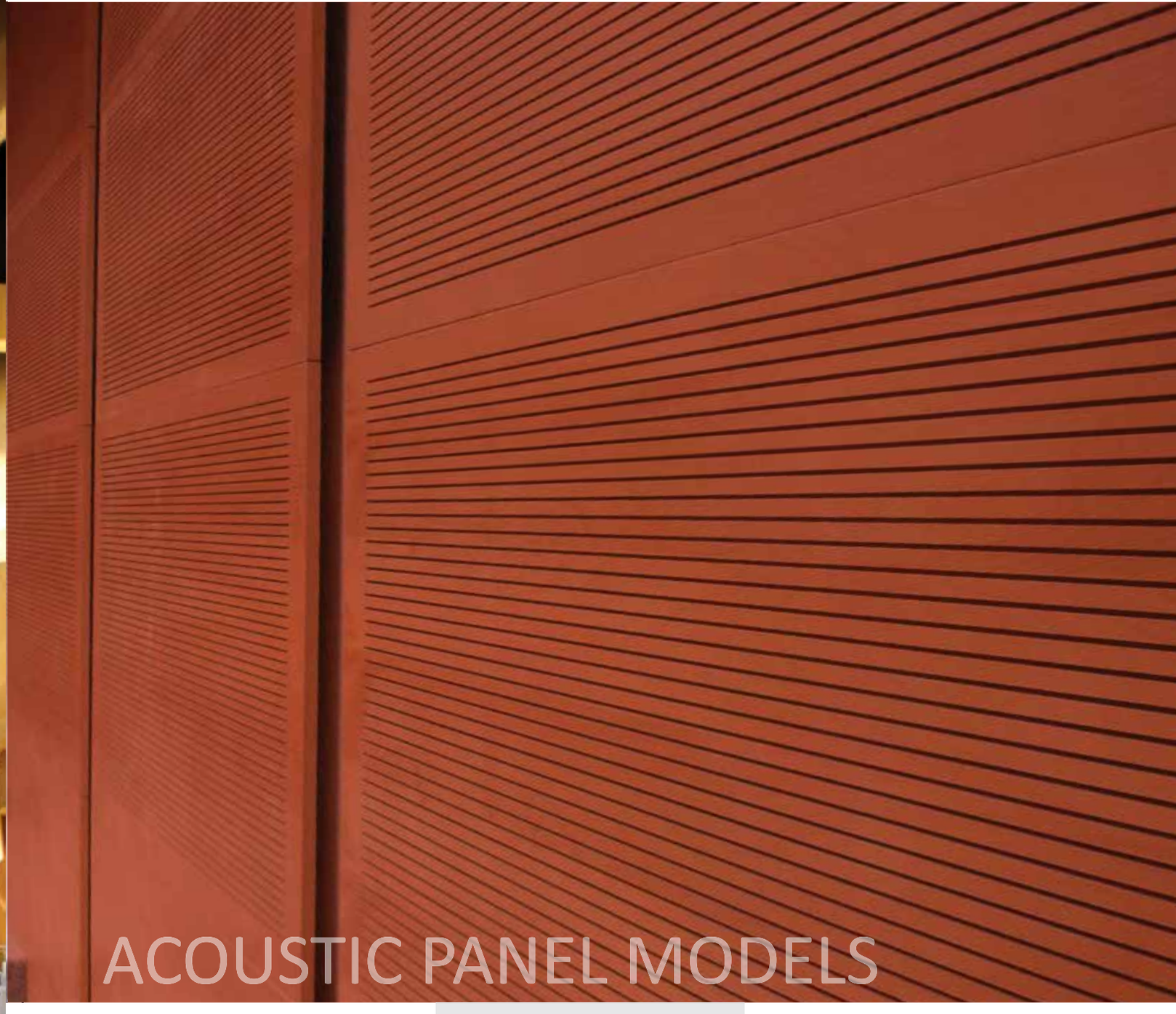
With artistic printing technique, we may transfer pictures and scripts to the panel surfaces as you wish to do and we obtain different and unique designs. Laminate, wooden coated and mdflam panel surfaces are subject to printing process.

Laminate Coating

Laminate coating is preferred due to its surface hardness and resistance. It has easy maintenance due to easy wiping. Wooden pattern, plane colored or metal surfaces models are available. Laminate coatings of the requested trademarks are applicable.



Marmara University Faculty Of Theology
Auditorium,
Project: Hassa Architecture
Istanbul 2015

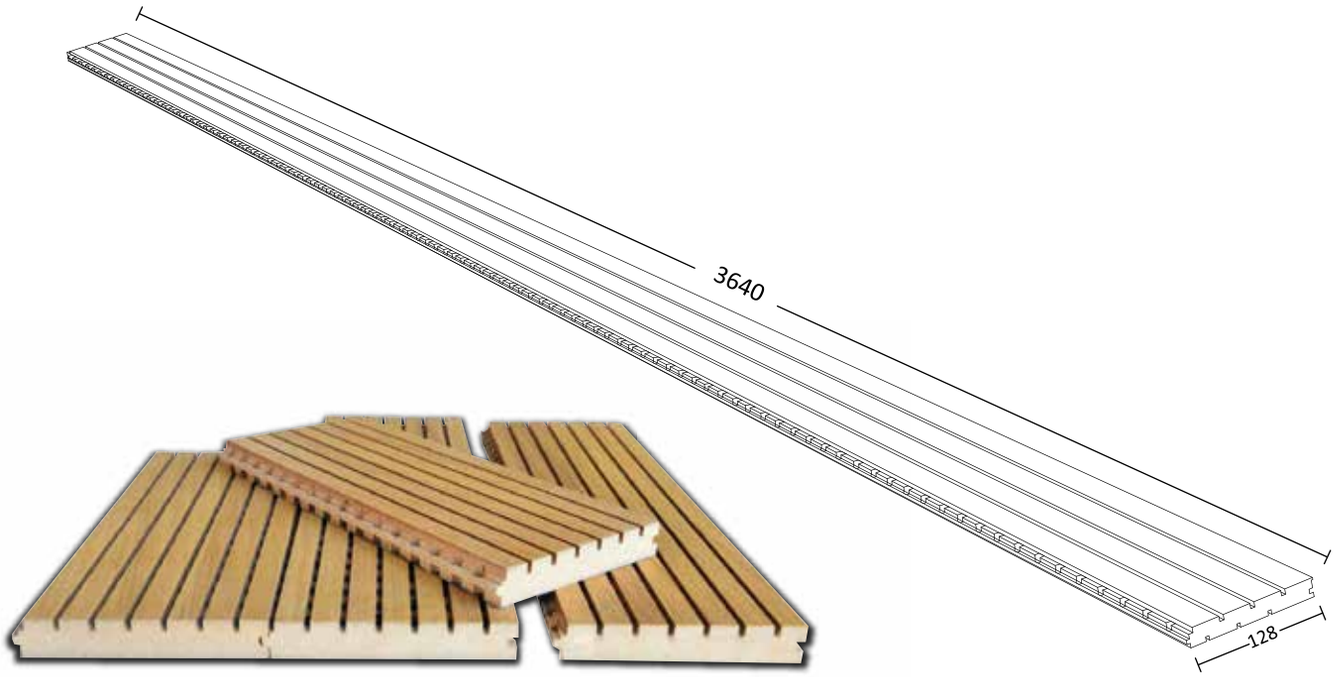


ACOUSTIC PANEL MODELS

- G-T System Panels
- Grooved Wall Panels
- Perforated Wall Panels
- Micro Perforated Panels
- Reflective Panels
- Fire Retardant Acoustic Panels
- Fabric Panels
- Installation Details
- Curved Panels
- Flexible Acoustic Panel

ACOUSTIC PANEL MODELS

G-T System



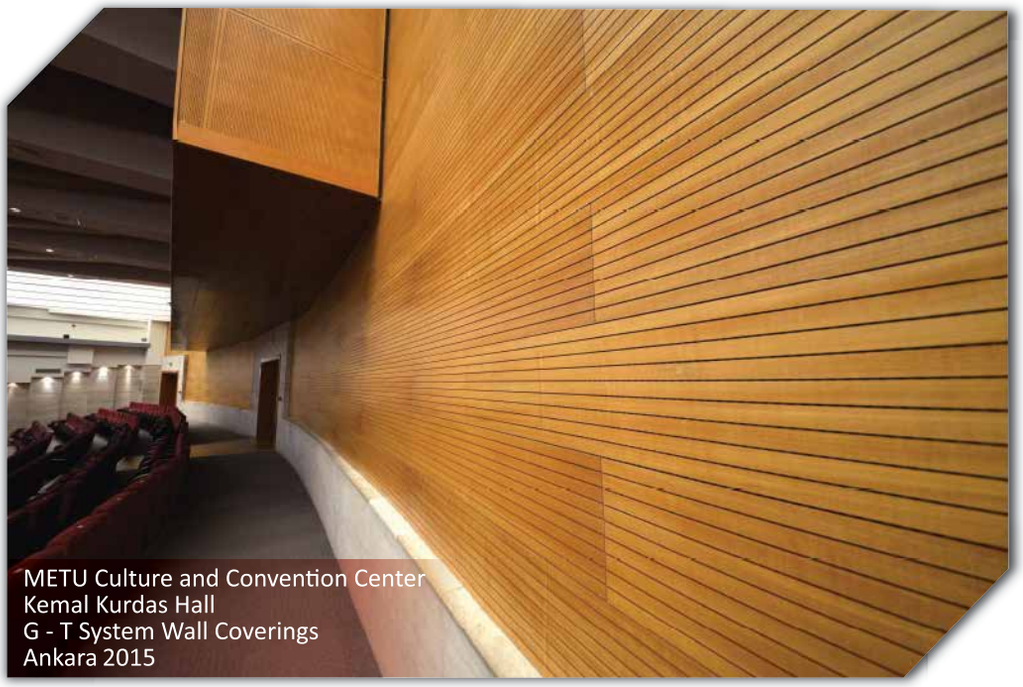
Due to Groove and Tongue (G-T) system, a joint between two panels in which raised area on the edge of one panel fits into a corresponding groove in the edge of the other to produce a flush surface more aesthetic. This channel system which is opened by special machines provide the joints of the panels invisible and provide a monolithic appearance.

In ash tree, beech, maple and white lacquer painted panel assembly joints which are light color coatings in wall and ceiling panels in which G-T system is applied; difference of color perception may occur. In order to eliminate this disturbing perception, we suggest for the selection of coatings with darker colors which are closer tomdf or selection of our 2F 6 A – 2F 14 A – 2F 30 . A acoustic models which are indeed having more narrowed joint gap.

Grand Pera Cinema Foyer
G - T System Ceiling Coating
Istanbul 2016

ACOUSTIC PANEL MODELS

G-T System



METU Culture and Convention Center
Kemal Kurdas Hall
G - T System Wall Coverings
Ankara 2015

G - T System Panel Manufacture

Surface Coating	Mdflam Melamine	Laminate – Hpl	Lacquer painted Ral&Pantone	Natural Wooden coated
Panel Thicknesses	18mm	19mm	19mm	19mm
Panel Fire Classes	D-s1,d0/B-s2,d0	D-s1,d0 /B-s2,d0	D-s1,d0 /B-s2,d0	D-s1,d0 /B-s2,d0
Standard Board Sizes	Maximum(mm) 1830x3660 2100x2800 2100x3660 1220x2440	Maximum(mm) 1400x3660	Maximum(mm) 1830x3660 2100x2800 2100x3660 1220x2440	Maximum(mm) 1830x3660 2100x2800
Measures Used In Grooved Panels	128x2780 128x3640 288x600 288x900 288x1200 288x1390 288x2780 288x3640	128x2780 128x3640 288x600 288x1200 288x1390 288x2780	128x2780 128x3640 288x600 288x900 288x1200 288x1390 288x2780 288x3640	128x2780 288x600 288x900 288x1200 288x1390 288x2780

Above given sizes are appropriate measures for production. Special production is available upon your request and project. For your requests with different measures, please apply Perfopan technical office. Please see the table in page 43 for panels fire performance.

ACOUSTIC PANEL MODELS

Grooved Wall Panels

Hacettepe University
Faculty of Law Conference Hall
Ankara 2013

DEFINITON

Grooved wall panel is our one of the most preferred acoustic panel model with its linear vision and acoustic properties. Grooves gaps and widths are processed in different axis and acoustic emission features are diversified. Grooved group panels are grooved from the front side and are drilled from the rear side are made as acoustic panel. Grooved panels process feature is divided into two groups.

a) Grooved and perforated : Holes are seen clearly between the grooves. Higher level of emission is provided in medium and high frequencies.

b) Grooved and stepwised perforated: Holes between the grooves are double sided hole processed. Holes are opened with a diameter of 3 mm from the front and 8 -10 mm from the rear side. Holes are smaller and embedded. A better aesthetical appearance compared to other jointed panels High level of emission is provided in low frequency sounds.

Special panel manufacturing is available according to our customers' project and color requests. Panel model and surface covering preferences are various and they are specially produced for each project, thus our company has no stocks.

AREAS OF USE

Used in all multi-purpose halls, auditoriums, offices, meeting rooms, hotels, music halls, theatres, restaurants, public buildings and sport halls.

FIRE RESISTANCE

See the table on page 43 for panels' fire resistance.

ACOUSTIC EMISSION PROPERTY

Various acoustic performances may be provided by different model wall panels applicable according to the project.

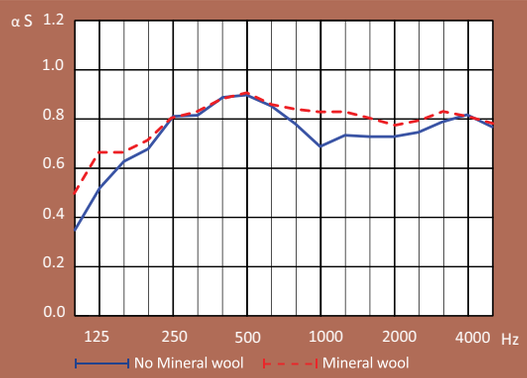
TECHNICAL PROPERTIES

Melamine panel: 18 mm thickness, weight 13.5 kg/m².
Coated panel: 18 mm thickness, weight 14 kg/m².
Consult to Perforan Technical Office for panels' wooden veins.

ACOUSTIC PANEL MODELS

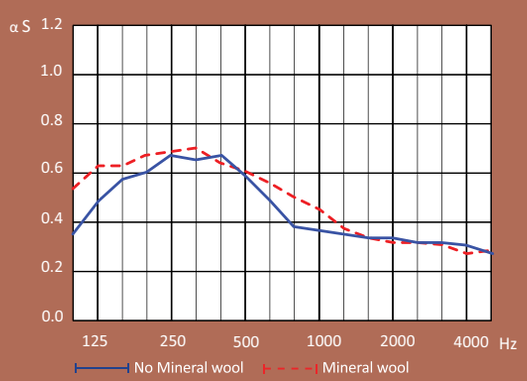
Grooved Wall Panels

CODE NO.2F 6A PR %8 DS 4000



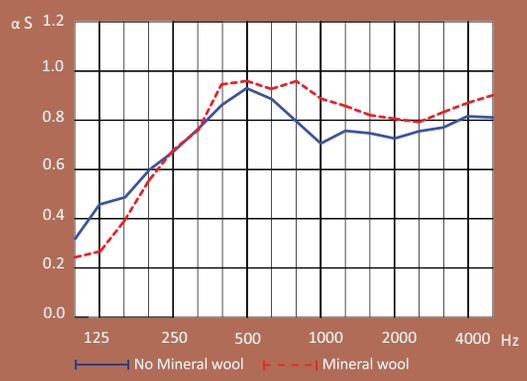
NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.80	0.78	B	No Mineral Wool	0.31	0.50	0.61	0.67	0.81	0.82	0.90	0.91	0.86	0.78	0.68	0.73	0.72	0.72	0.74	0.79	0.82	0.77
0.85	0.83	B	Mineral Wool	0.48	0.66	0.66	0.71	0.81	0.84	0.90	0.92	0.87	0.85	0.84	0.84	0.81	0.78	0.80	0.84	0.82	0.79

CODE NO.3F 5A KD 3/8 mm PR %23 DS 8000



NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.50	0.35	D	No Mineral Wool	0.35	0.52	0.63	0.62	0.71	0.67	0.68	0.59	0.49	0.38	0.34	0.34	0.31	0.32	0.29	0.26	0.25	0.27
0.50	0.35	D	Mineral Wool	0.59	0.64	0.65	0.74	0.74	0.71	0.70	0.62	0.57	0.50	0.43	0.35	0.32	0.30	0.27	0.25	0.23	0.24

CODE NO.3F 5A PR %13 DS 4000

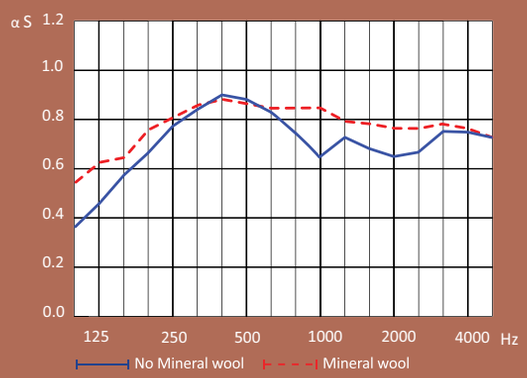


NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.75	0.80	B	No Mineral Wool	0.29	0.47	0.50	0.60	0.71	0.77	0.86	0.92	0.88	0.80	0.69	0.74	0.74	0.73	0.76	0.78	0.83	0.82
0.85	0.85	B	Mineral Wool	0.26	0.28	0.39	0.54	0.67	0.76	0.93	0.94	0.92	0.95	0.91	0.87	0.83	0.81	0.79	0.84	0.88	0.91

ACOUSTIC PANEL MODELS

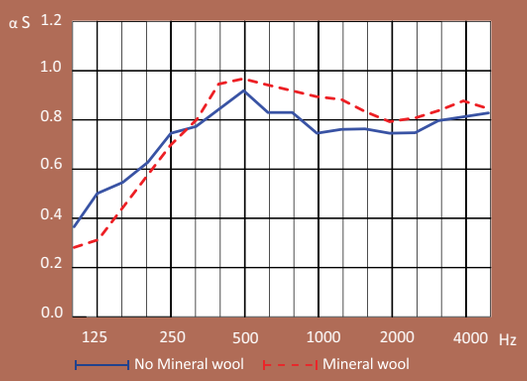
Grooved Wall Panels

CODE NO.2F 14A PR %8 DS 4000



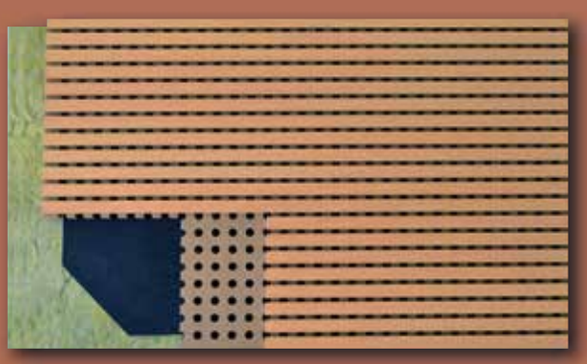
NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.75	0.70	C	No Mineral Wool	0.35	0.45	0.58	0.66	0.78	0.85	0.91	0.89	0.84	0.76	0.66	0.72	0.67	0.66	0.68	0.75	0.75	0.74
0.85	0.85	B	Mineral Wool	0.53	0.62	0.64	0.76	0.81	0.87	0.90	0.88	0.86	0.86	0.86	0.80	0.79	0.77	0.77	0.79	0.77	0.73

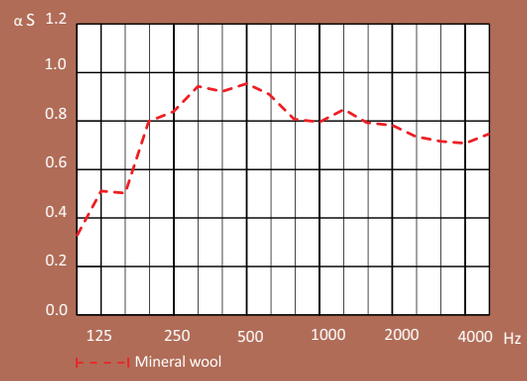
CODE NO.3F 13A PR %13 DS 4000



NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.75	0.80	B	No Mineral Wool	0.35	0.50	0.53	0.60	0.71	0.76	0.82	0.90	0.82	0.82	0.67	0.73	0.74	0.73	0.73	0.78	0.81	0.82
0.85	0.90	A	Mineral Wool	0.28	0.30	0.41	0.55	0.69	0.79	0.93	0.95	0.94	0.93	0.89	0.88	0.82	0.78	0.79	0.83	0.88	0.84

CODE NO.4F 12A PR %16 DS 4000



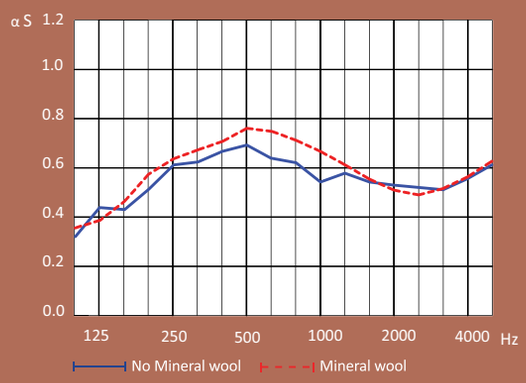


NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.85	0.80	B	Mineral Wool	0.34	0.51	0.50	0.79	0.83	0.93	0.91	0.94	0.90	0.80	0.79	0.84	0.79	0.78	0.74	0.72	0.71	0.74

ACOUSTIC PANEL MODELS

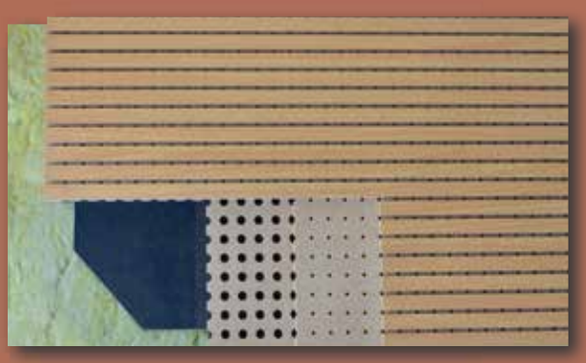
Grooved Wall Panels

CODE NO.3F 13A PR %6 DS 2000



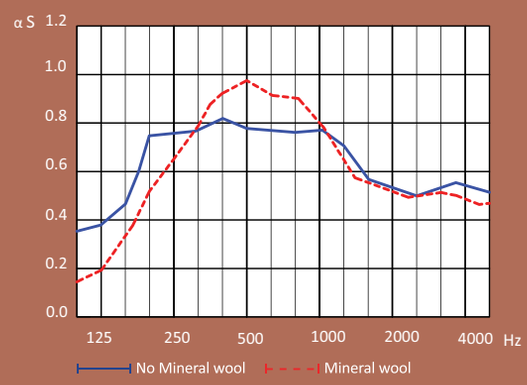
NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.60	0.60	C	No Mineral Wool	0.28	0.46	0.45	0.51	0.60	0.61	0.66	0.69	0.63	0.62	0.52	0.55	0.53	0.53	0.52	0.52	0.56	0.60
0.65	0.60	C	Mineral Wool	0.31	0.37	0.45	0.56	0.63	0.68	0.72	0.75	0.74	0.68	0.65	0.61	0.54	0.51	0.49	0.53	0.56	0.61

CODE NO.3F 13A KD 3/8 mm DS 8000



NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.50	0.35	D	No Mineral Wool	0.35	0.52	0.63	0.62	0.71	0.67	0.68	0.59	0.49	0.38	0.34	0.34	0.31	0.32	0.29	0.26	0.25	0.27
0.50	0.35	D	Mineral Wool	0.59	0.64	0.65	0.74	0.74	0.71	0.70	0.62	0.57	0.50	0.43	0.35	0.32	0.30	0.27	0.25	0.23	0.24

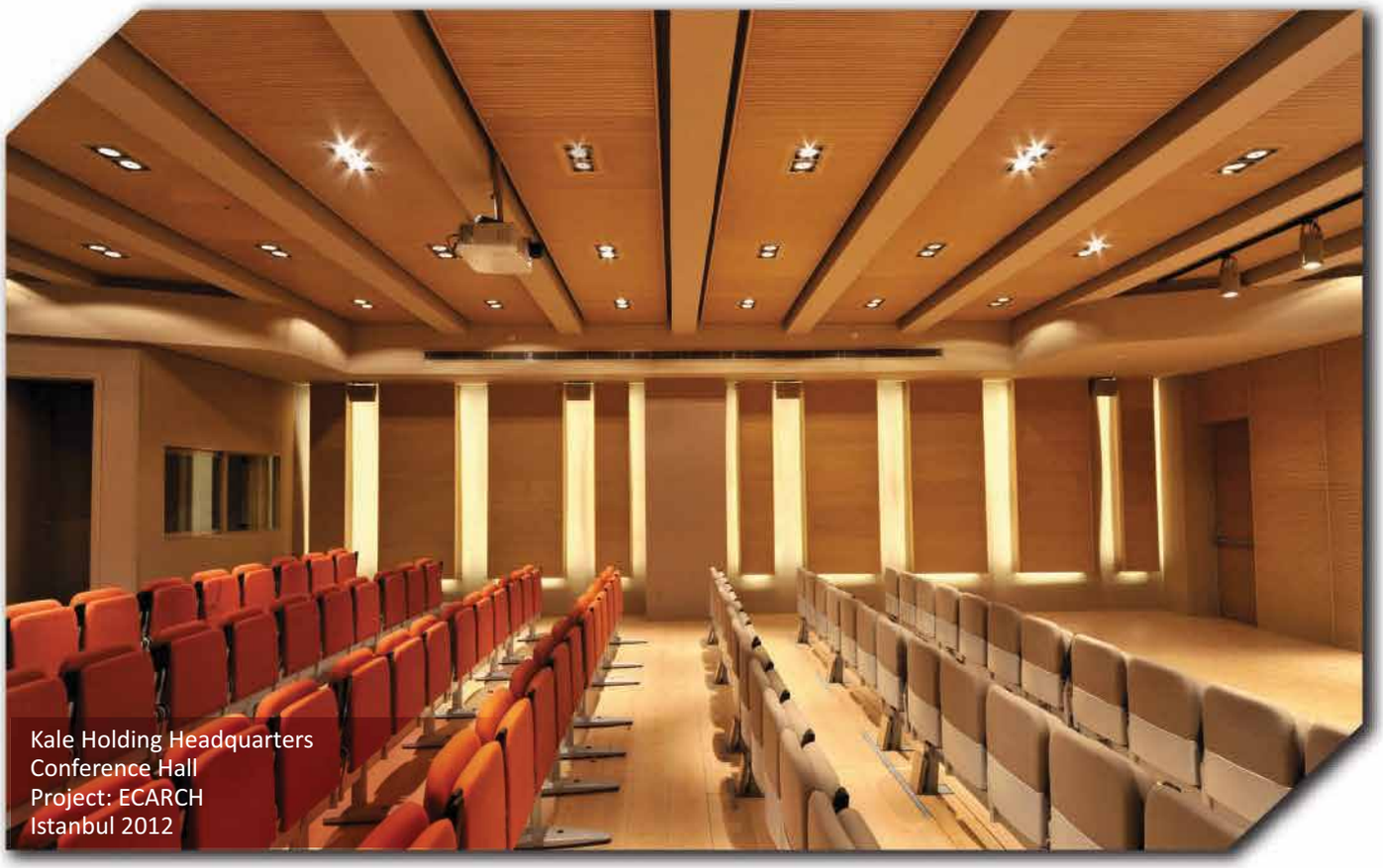
CODE NO.GBM PR % 7 DS 3000



NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.65	0.63	C	No Mineral Wool	0.37	0.39	0.48	0.75	0.76	0.77	0.82	0.78	0.77	0.76	0.77	0.71	0.58	0.54	0.51	0.54	0.54	0.52
0.65	0.60	C	Mineral Wool	0.14	0.20	0.31	0.51	0.63	0.80	0.92	0.97	0.91	0.90	0.80	0.63	0.57	0.52	0.51	0.52	0.48	0.46

ACOUSTIC PANEL MODELS

Grooved Wall Panels

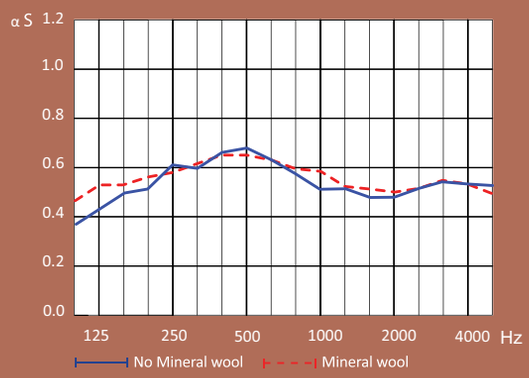


Kale Holding Headquarters
Conference Hall
Project: ECARCH
Istanbul 2012

ACOUSTIC PANEL MODELS

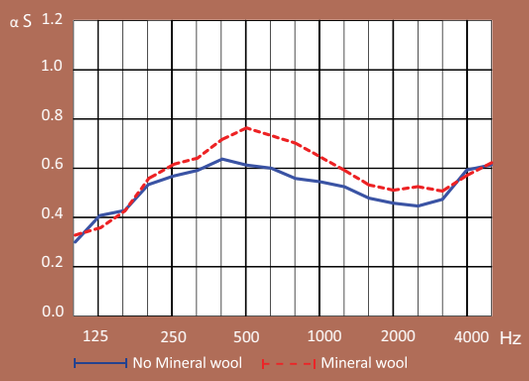
Grooved Wall Panels

CODE NO.2F 30A PR %4 DS 2000



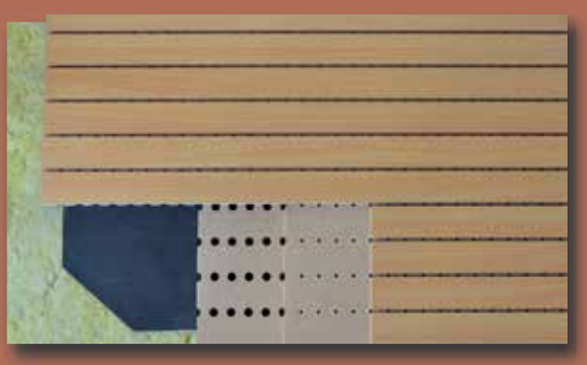
NRC	α w	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.55	0.55	D	No Mineral Wool	0.35	0.42	0.49	0.51	0.61	0.60	0.67	0.69	0.63	0.58	0.51	0.51	0.47	0.47	0.51	0.54	0.53	0.52
0.60	0.55	D	Mineral Wool	0.46	0.52	0.52	0.56	0.58	0.62	0.66	0.66	0.64	0.60	0.59	0.52	0.51	0.49	0.52	0.55	0.53	0.49

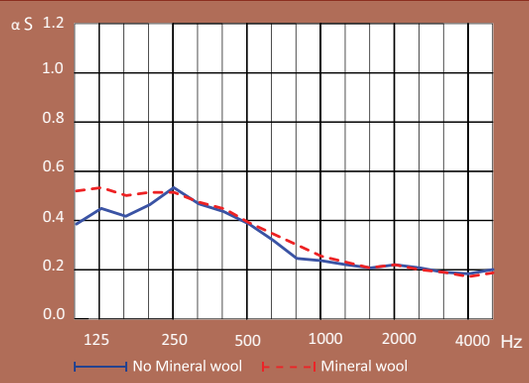
CODE NO.4F 28A PR %8 DS 2000



NRC	α w	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.55	0.55	D	No Mineral Wool	0.30	0.41	0.42	0.51	0.56	0.57	0.59	0.65	0.63	0.61	0.54	0.54	0.52	0.50	0.49	0.53	0.61	0.62
0.65	0.60	C	Mineral Wool	0.32	0.34	0.42	0.56	0.63	0.66	0.72	0.76	0.73	0.70	0.65	0.61	0.53	0.52	0.52	0.51	0.56	0.64

CODE NO.4F 28A KD 3/8 DS 4000



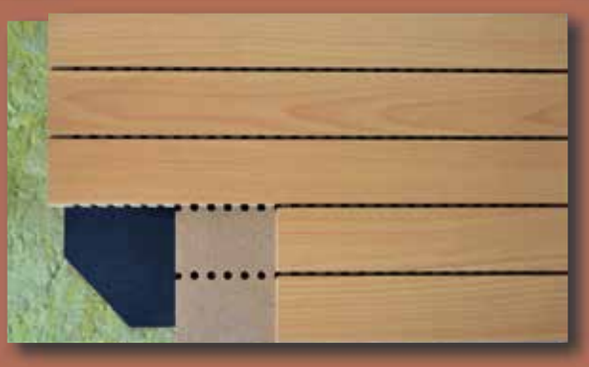


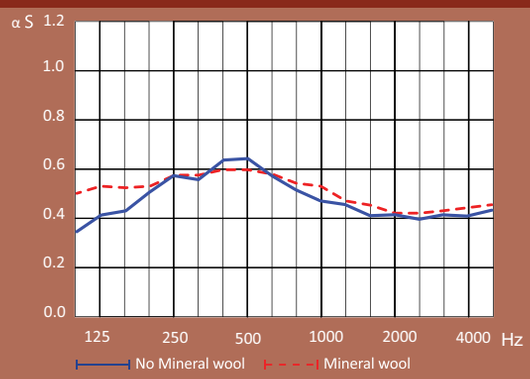
NRC	α w	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.35	0.25	E	No Mineral Wool	0.38	0.45	0.42	0.47	0.54	0.47	0.44	0.38	0.31	0.23	0.22	0.20	0.19	0.20	0.19	0.17	0.16	0.18
0.35	0.25	E	Mineral Wool	0.53	0.54	0.51	0.52	0.52	0.48	0.45	0.39	0.34	0.29	0.24	0.21	0.19	0.20	0.18	0.16	0.15	0.16

ACOUSTIC PANEL MODELS

Grooved Wall Panels

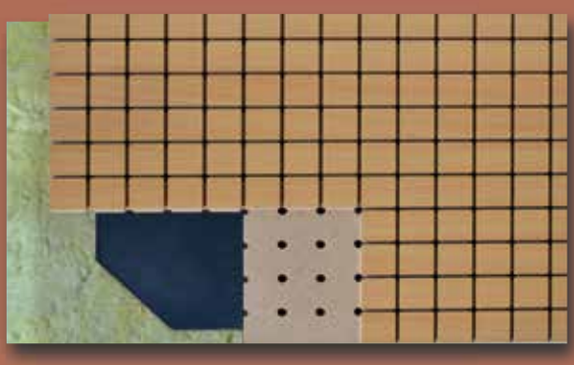
CODE NO.4F 64A PR %4 DS 1000

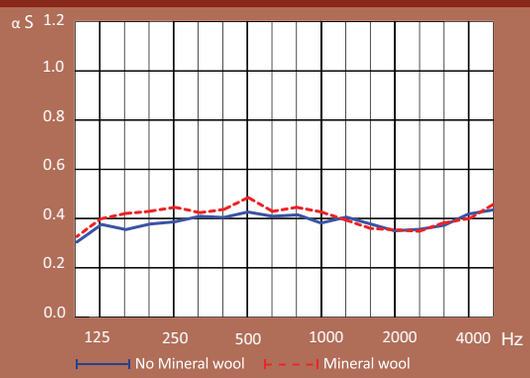




NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.50	0.45	D	No Mineral Wool	0.30	0.37	0.39	0.47	0.54	0.53	0.61	0.62	0.54	0.48	0.43	0.41	0.37	0.37	0.35	0.37	0.36	0.39
0.50	0.50	D	Mineral Wool	0.47	0.50	0.49	0.50	0.54	0.54	0.57	0.57	0.55	0.51	0.50	0.43	0.41	0.38	0.38	0.39	0.40	0.41

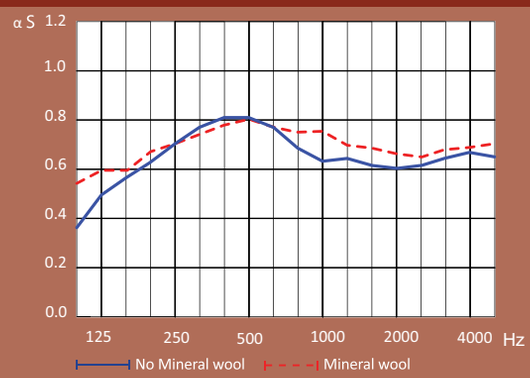
CODE NO.DK 32x32 PR %6 DS 1000





NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.40	0.40	D	No Mineral Wool	0.31	0.37	0.35	0.37	0.39	0.41	0.41	0.44	0.41	0.42	0.38	0.41	0.38	0.35	0.35	0.38	0.43	0.48
0.45	0.40	D	Mineral Wool	0.32	0.40	0.42	0.42	0.44	0.43	0.45	0.48	0.43	0.44	0.42	0.39	0.36	0.36	0.36	0.39	0.40	0.48

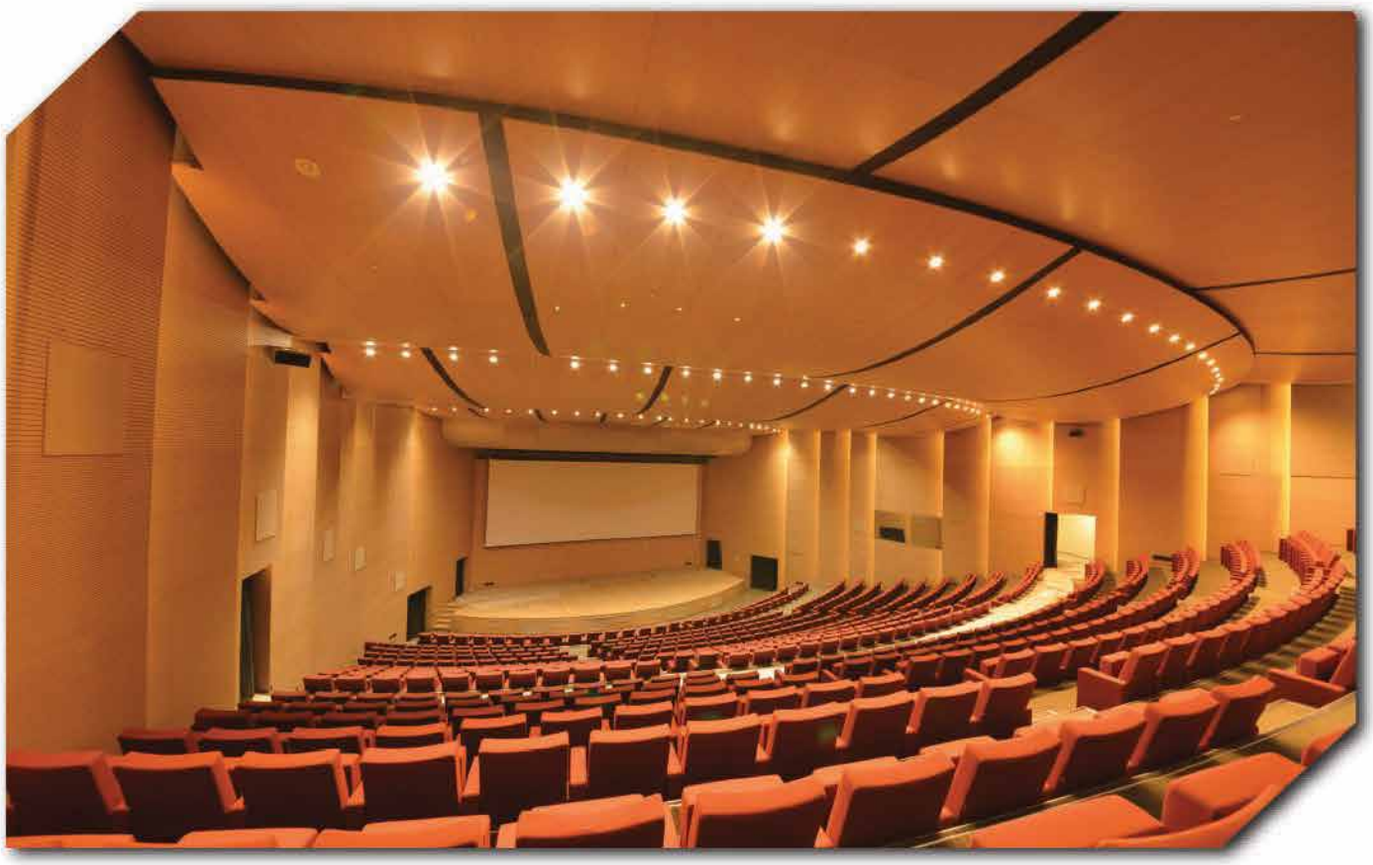
CODE NO.DK 32x32 PR %8 DS 2000

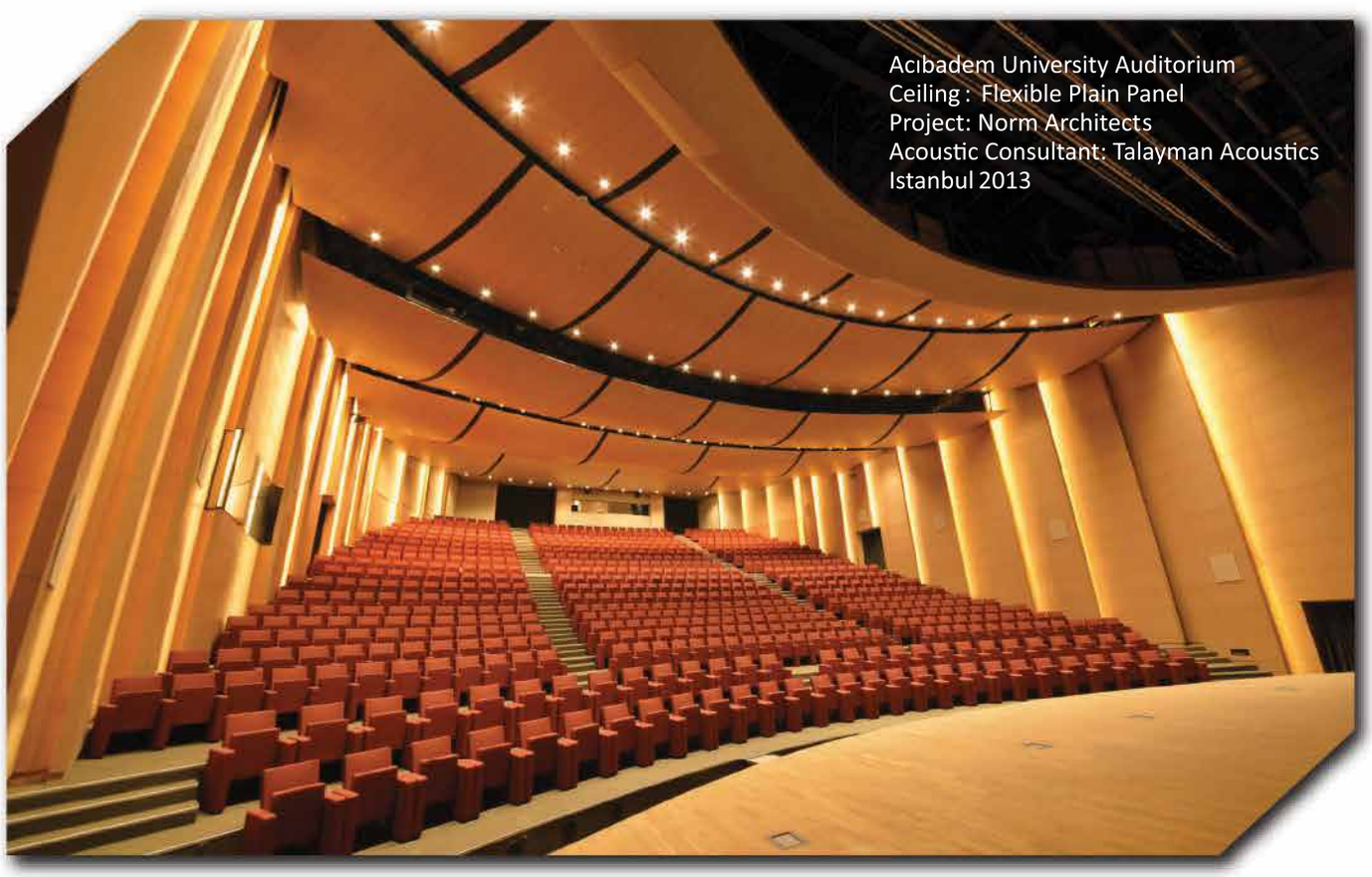


NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.70	0.65	C	No Mineral Wool	0.33	0.47	0.55	0.61	0.70	0.77	0.81	0.81	0.77	0.68	0.62	0.63	0.60	0.59	0.60	0.63	0.66	0.64
0.75	0.75	C	Mineral Wool	0.52	0.58	0.58	0.66	0.70	0.74	0.78	0.80	0.77	0.75	0.75	0.69	0.68	0.65	0.64	0.67	0.68	0.70

ACOUSTIC PANEL MODELS

Grooved Wall Panels



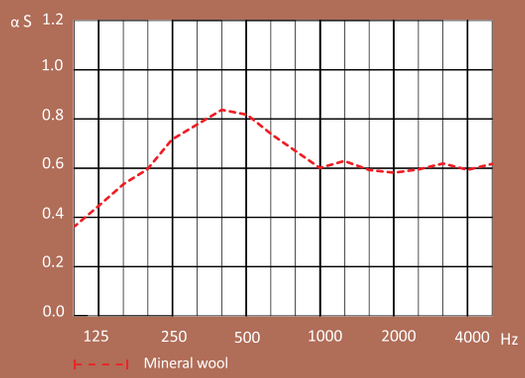


Acıbadem University Auditorium
Ceiling : Flexible Plain Panel
Project: Norm Architects
Acoustic Consultant: Talayman Acoustics
Istanbul 2013

ACOUSTIC PANEL MODELS

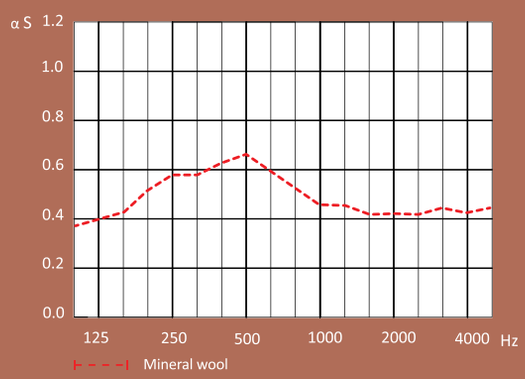
Grooved Wall Panels

CODE NO.SLT 3F 13A PR %8



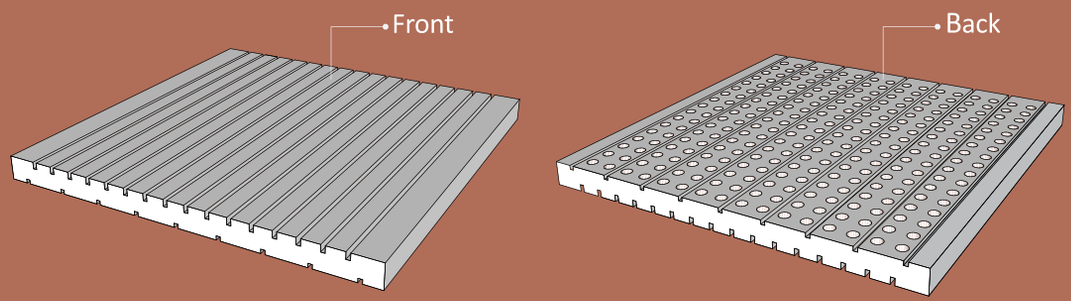
NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.70	0.71	C	Mineral Wool	0.36	0.45	0.55	0.61	0.75	0.81	0.88	0.86	0.77	0.70	0.62	0.65	0.61	0.60	0.61	0.64	0.61	0.64

CODE NO.SLT 4F 28A PR %5



NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.70	0.50	D	Mineral Wool	0.44	0.41	0.41	0.42	0.45	0.46	0.53	0.60	0.68	0.64	0.59	0.58	0.52	0.42	0.39	0.36	0.43	0.41

Grooved Panel Manufacturing Detail

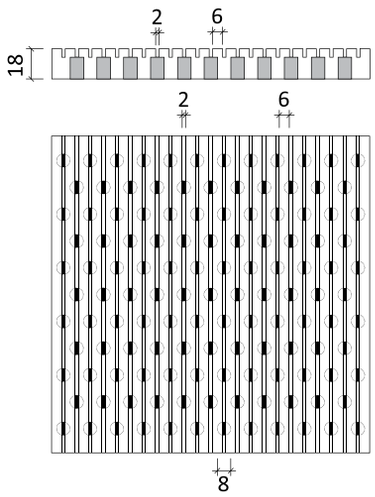


The grooved panels are bent towards the side of the grooving due to the slits opening in front of them. In order to prevent this twisting, it is necessary to open grooves to the back surfaces of the panels. The back surface of all grooved panels are manufactured by opening grooves to prevent the image quality from deteriorating.

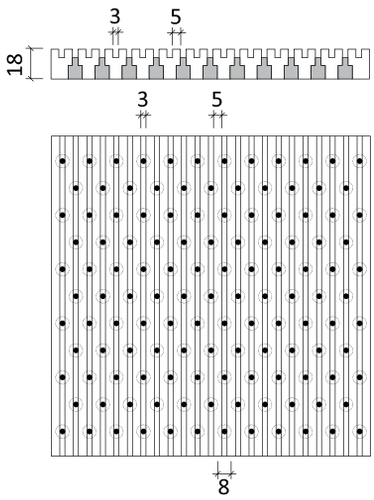
ACOUSTIC PANEL MODELS

Grooved Panel Details

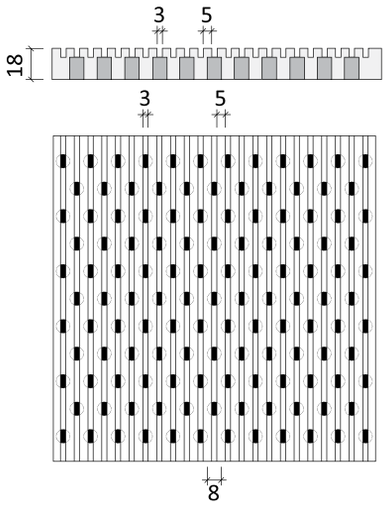
2F 6A DS 4000



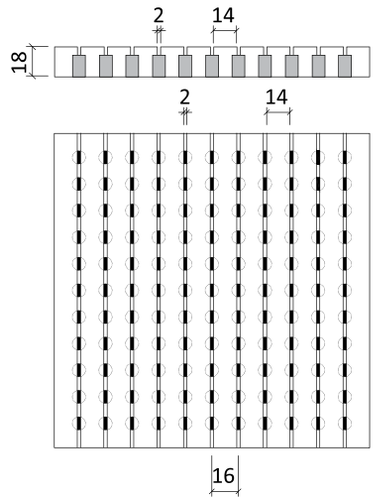
3F 5A KD3/8 mm DS 8000



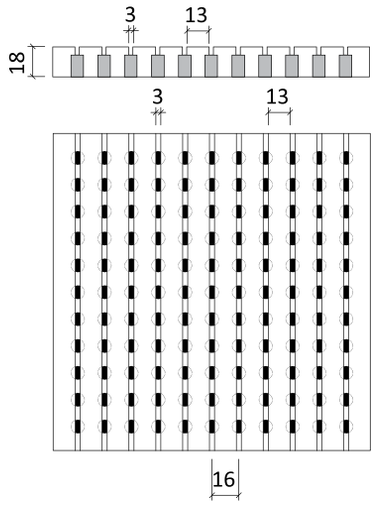
3F 5A DS 4000



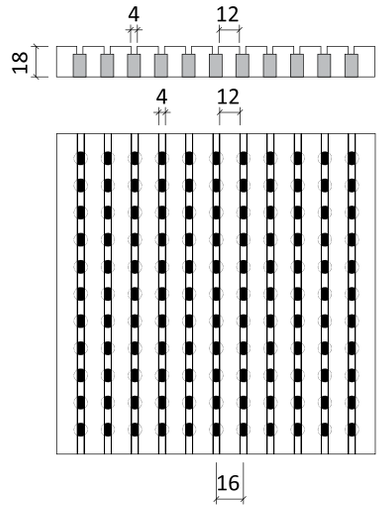
2F 14A DS 4000



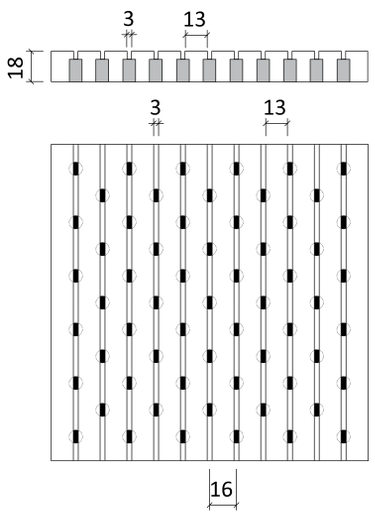
3F 13A DS 4000



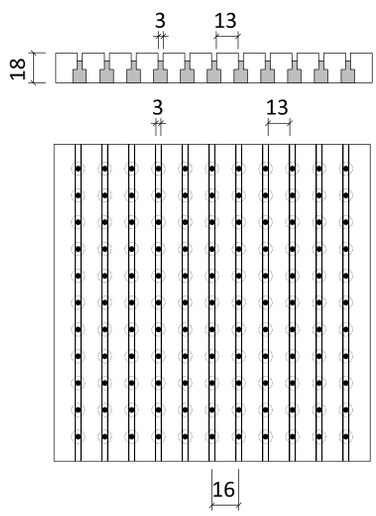
4F 12A DS 4000



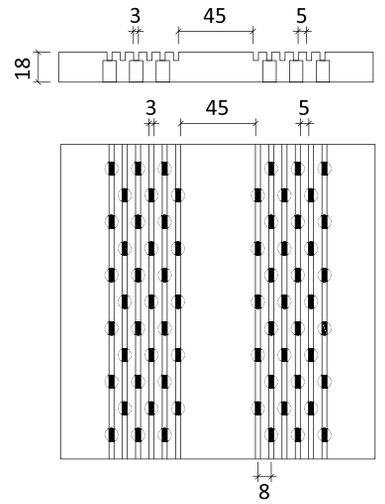
3F 13A DS 2000



3F 13A KD 3/8 mm DS 8000



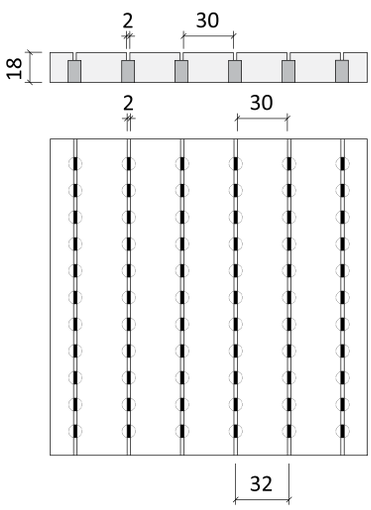
GBM DS 3000



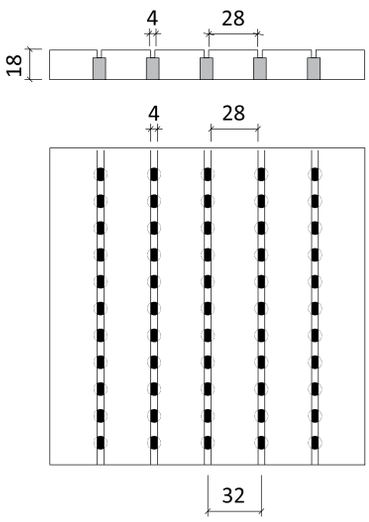
ACOUSTIC PANEL MODELS

Grooved Panel Details

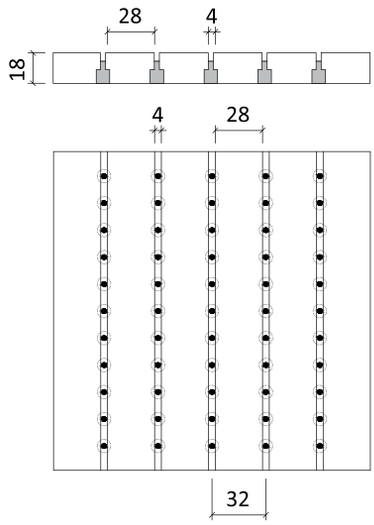
2F 30A DS 2000



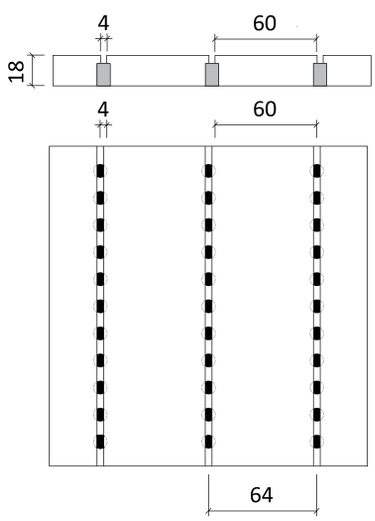
4F 28A DS 2000



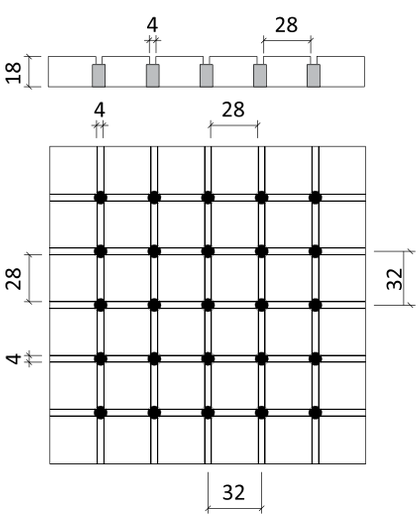
4F 28A KD 3/8 mm DS 4000



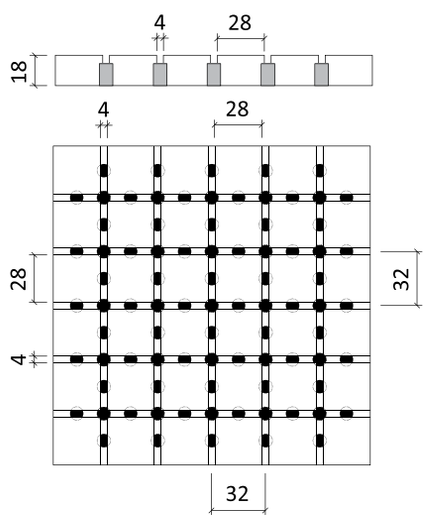
4F 64 A DS 1000



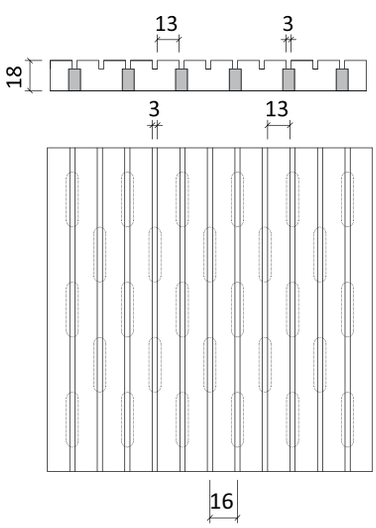
DK 32x32 DS 1000



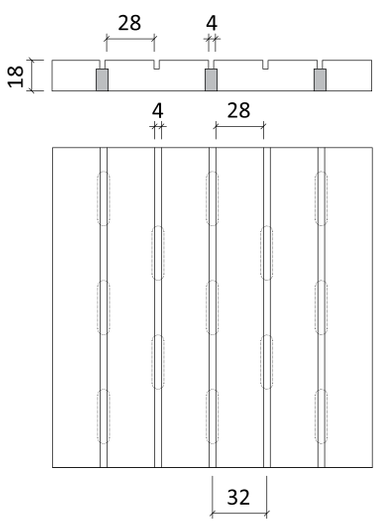
DK 32x32 DS 2000



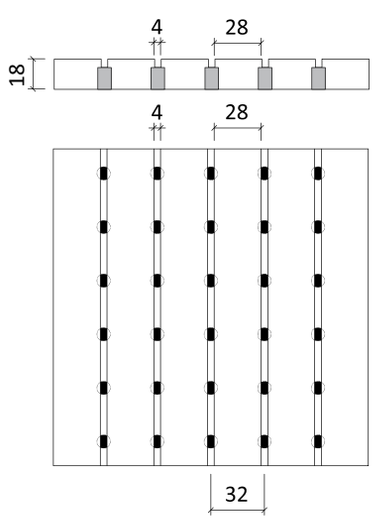
SLT 3F 13A



SLT 4F 28A

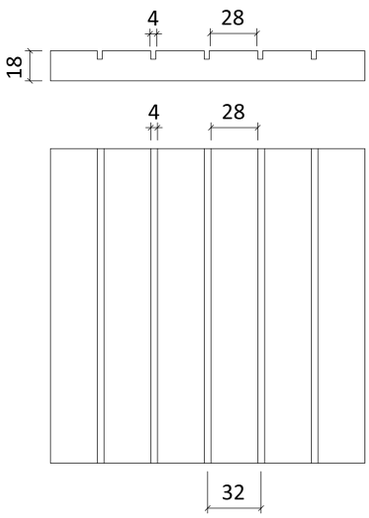
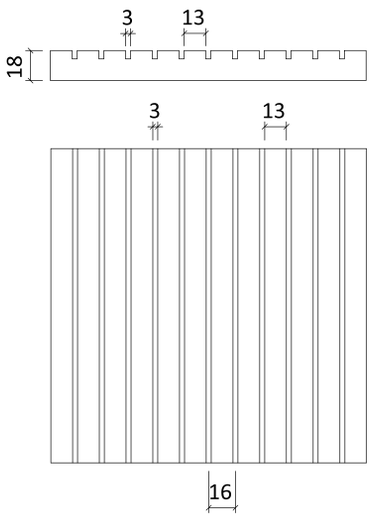
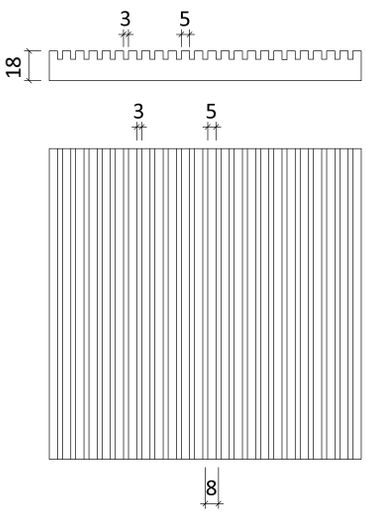
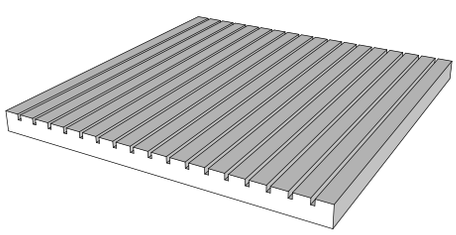
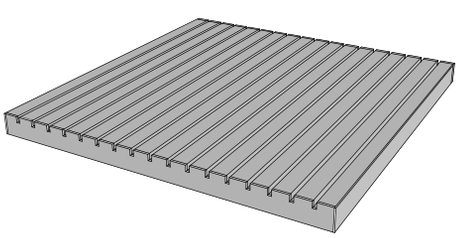
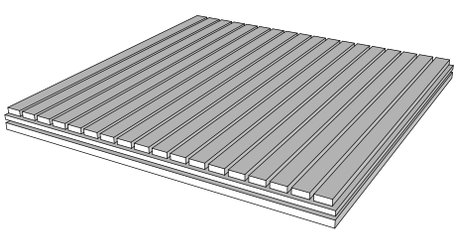
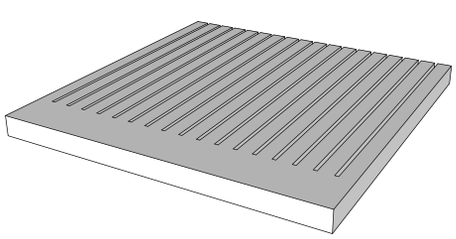
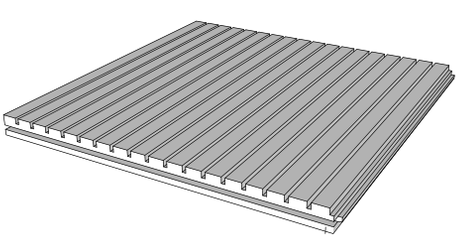
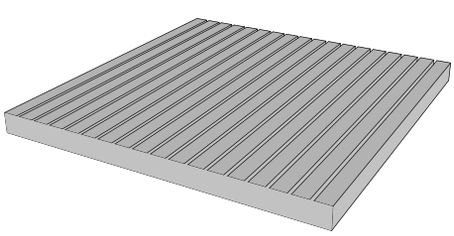


4F 28A DS 1000



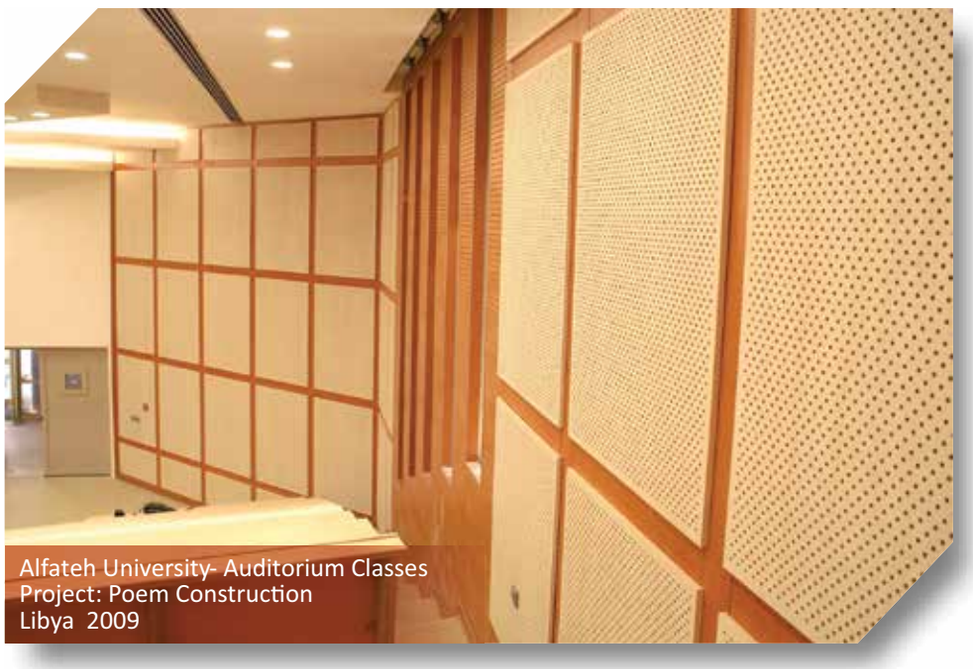
ACOUSTIC PANEL MODELS

Grooved Panel Details

YST 4x28	YST 3x13	YST 3x5
		
Flat, Non- processed side	Side Banded	4mm Fluted Edge
		
Framed	G-T System Channelled	Hidden Grooved Edge With Coating
		

ACOUSTIC PANEL MODELS

Perforated Wall Panels



Alfateh University- Auditorium Classes
Project: Poem Construction
Libya 2009

DEFINITION:

Perforated wall panels are our common preferred acoustic model due to its perforated appearance and acoustic features. Hole gaps and widths are processes in different axis and acoustic emission features are diversified. Perforated group panels are devided into two as full perforated and stepwised perforated.

a) Full perforated: Full perforated panels are manufactured by being drilled with a single diameter thickness from the upper side. Emission values differ according to models and hole diameter.

b) Stepwised perforated: stepwised perforated panels are manufactured by being drilled with different diameters from both sides. Higher degree of emission is provided in low frequency sounds.

ACOUSTIC TEST INFORMATION:

Curves indicated on the graphics express the two staged test property of the panels. Red lines indicate the values including mineral wool. Blue lines express the acoustic values which do not include mineral wool. Test results reveals that acoustic emission reached better level as mineral wool is used for panels.

Panel selection properties: Panels with intensive and fully perforations, panel models such as TD-DS 4000,TD-DS 8000 are preferred more at the places where number of people and noise is higher. Panels' emission performance provide contribution to higher sound fading compared to processed panels. Panels hole diameters may be drilled as 2,3,4,5,6,7,8,9,10,11,12 cm.

TECHNICAL PROPERTIES :

Mdflam / Melamine Panel: 18 mm thickness, weight 13.5 kg/m².
Wooden coated Panel :19 mm thickness, weight 14 kg/m².
Laminate coated Panel :19 mm thickness, weight 14 kg/m².
You may obtain assistance from our office about the wood grain pattern which you wish to apply in your projects and the acoustic groove direction.

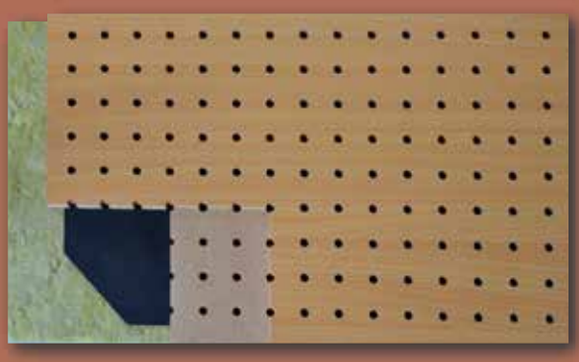
FIRE RESISTANCE:

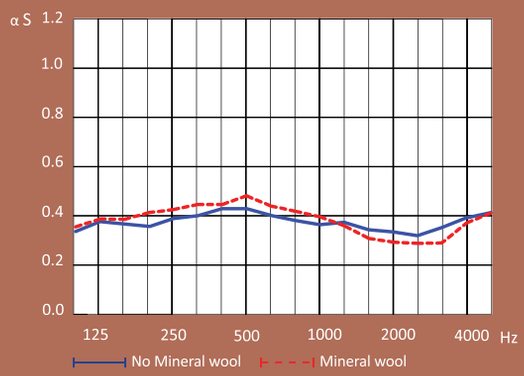
See the table on page 43 for panels' fire resistance.

ACOUSTIC PANEL MODELS

Perforated Wall Panels

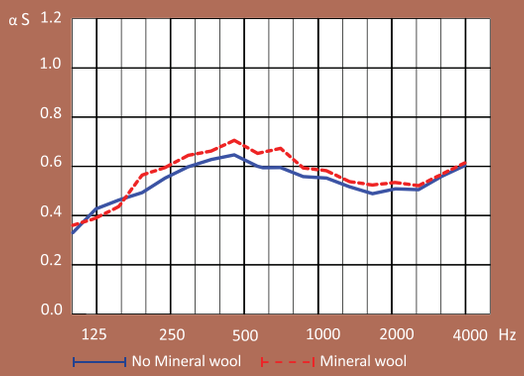
CODE NO.TD 32x32x8 mm PR %5 DS 1000





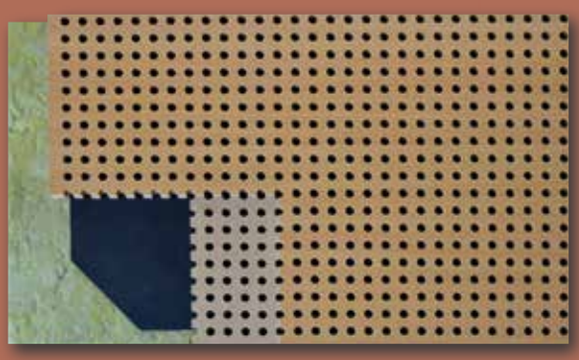
NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.35	0.35	D	No Mineral Wool	0.31	0.37	0.36	0.36	0.39	0.40	0.44	0.44	0.40	0.38	0.35	0.35	0.32	0.31	0.29	0.34	0.39	0.41
0.40	0.40	D	Mineral Wool	0.35	0.38	0.38	0.42	0.43	0.46	0.46	0.50	0.45	0.44	0.39	0.35	0.33	0.31	0.30	0.31	0.37	0.41

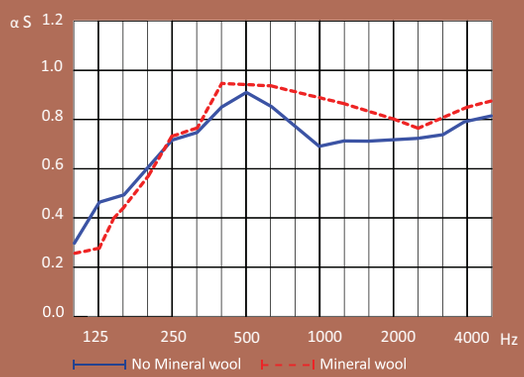
CODE NO.TD 32x32x8 mm PR %10 DS 2000



NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.55	0.55	D	No Mineral Wool	0.30	0.45	0.47	0.49	0.54	0.60	0.64	0.65	0.61	0.59	0.54	0.54	0.51	0.49	0.51	0.51	0.58	0.62
0.60	0.60	C	Mineral Wool	0.31	0.36	0.45	0.56	0.60	0.67	0.69	0.72	0.64	0.67	0.60	0.58	0.53	0.51	0.52	0.51	0.56	0.62

CODE NO.TD 16x16x8 mm PR %20 DS 4000



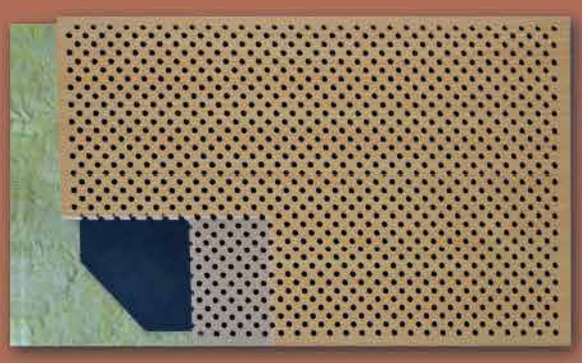


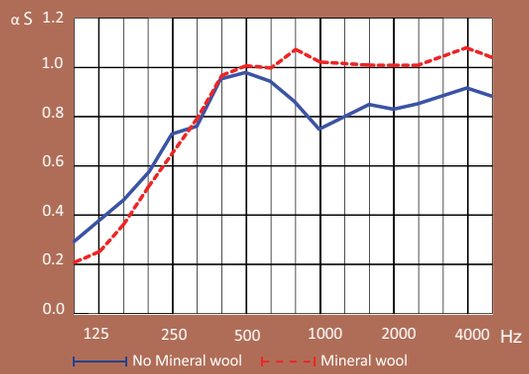
NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.75	0.75	C	No Mineral Wool	0.30	0.47	0.49	0.59	0.71	0.75	0.85	0.92	0.85	0.78	0.68	0.69	0.70	0.71	0.73	0.77	0.80	0.82
0.85	0.90	A	Mineral Wool	0.26	0.29	0.44	0.56	0.70	0.77	0.95	0.95	0.95	0.93	0.91	0.87	0.82	0.79	0.77	0.81	0.87	0.89

ACOUSTIC PANEL MODELS

Perforated Wall Panels

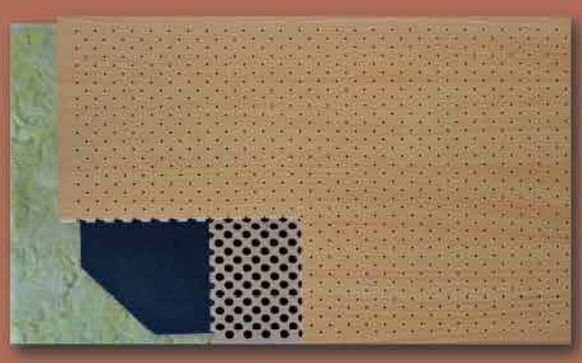
CODE NO.TD 16x16x8 mm PR %23 DS 8000

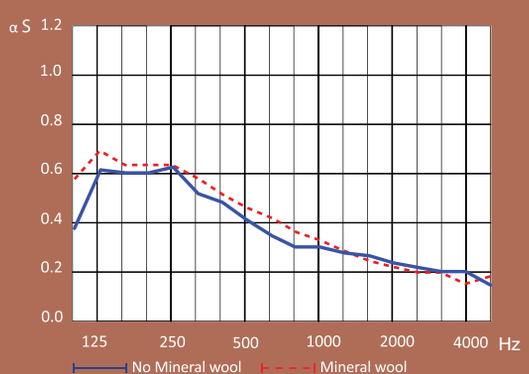




NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.80	0.85	B	No Mineral Wool	0.27	0.38	0.46	0.58	0.73	0.75	0.94	0.98	0.92	0.85	0.73	0.80	0.86	0.85	0.87	0.90	0.91	0.89
0.95	0.95	A	Mineral Wool	0.21	0.26	0.35	0.53	0.68	0.81	0.99	1.02	1.00	1.08	1.04	1.04	1.03	1.02	1.02	1.07	1.09	1.05

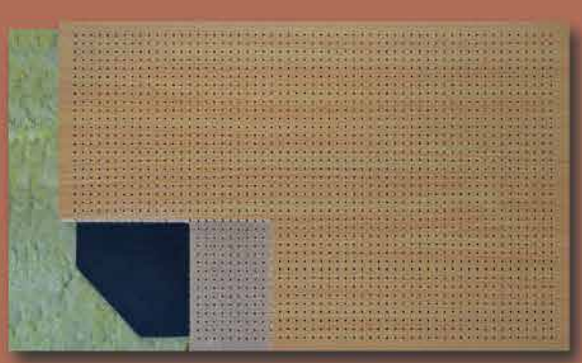
CODE NO.KD 16x16x2/8 mm PR %42 DS 16.000

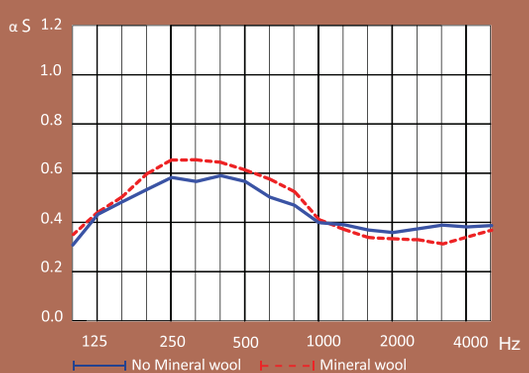




NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.35	0.25	E	No Mineral Wool	0.35	0.60	0.59	0.59	0.61	0.50	0.46	0.38	0.31	0.26	0.26	0.23	0.22	0.19	0.17	0.15	0.15	0.09
0.40	0.20	E	Mineral Wool	0.57	0.69	0.62	0.62	0.61	0.56	0.49	0.44	0.39	0.33	0.29	0.24	0.20	0.17	0.15	0.14	0.10	0.12

CODE NO.TD 8x8x2 mm PR %5 DS 16.000



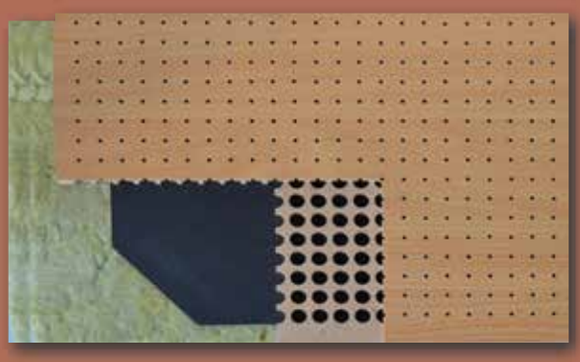


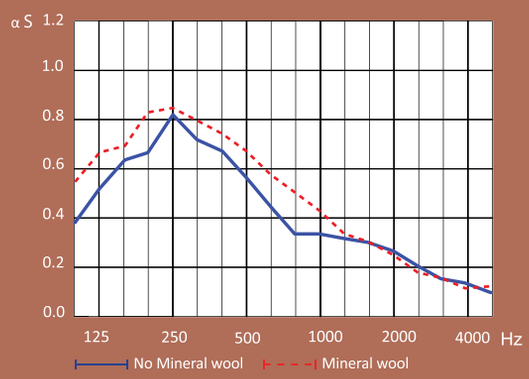
NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.45	0.40	D	No Mineral Wool	0.29	0.45	0.59	0.59	0.61	0.50	0.46	0.38	0.31	0.46	0.39	0.39	0.37	0.34	0.35	0.36	0.36	0.36
0.50	0.45	D	Mineral Wool	0.34	0.42	0.62	0.62	0.61	0.56	0.49	0.44	0.39	0.50	0.42	0.38	0.34	0.33	0.33	0.32	0.33	0.37

ACOUSTIC PANEL MODELS

Perforated Wall Panels

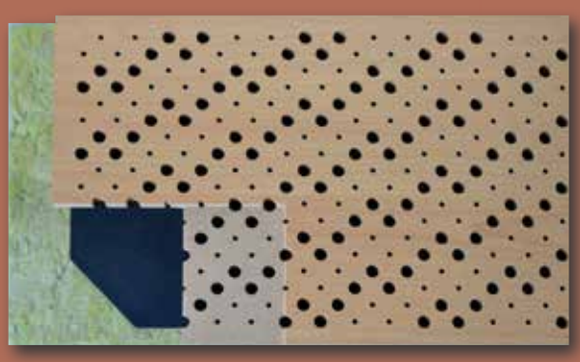
CODE NO. KD 16x16x3/10 PR %34 DS 8000

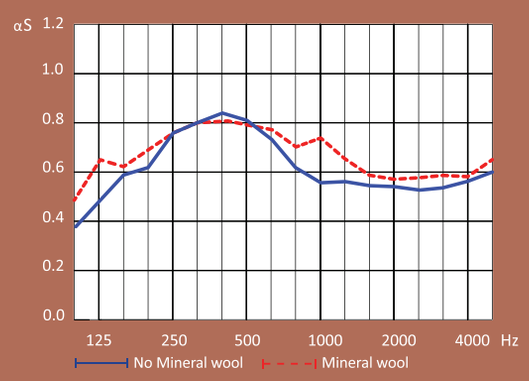




NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.35	0.30	D	No Mineral Wool	0.39	0.52	0.64	0.67	0.82	0.72	0.68	0.57	0.45	0.34	0.34	0.32	0.31	0.27	0.21	0.16	0.14	0.11
0.50	0.30	D	Mineral Wool	0.55	0.67	0.70	0.83	0.85	0.80	0.75	0.68	0.58	0.51	0.44	0.34	0.31	0.26	0.19	0.16	0.12	0.13

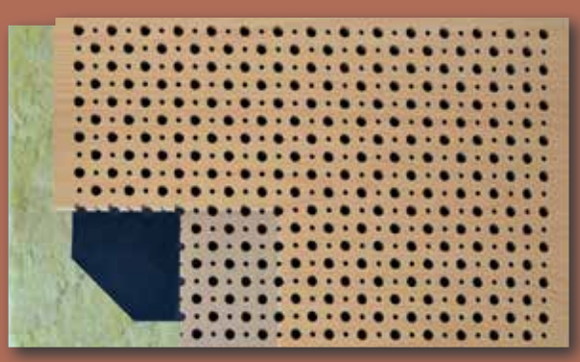
CODE NO. Z - TD 32x32x5/12 mm PR %13 DS 2000

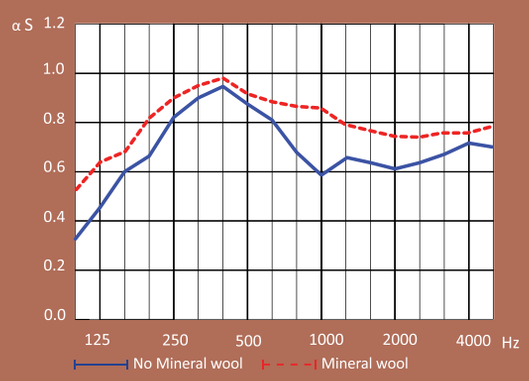




NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.65	0.55	D	No Mineral Wool	0.36	0.47	0.59	0.62	0.75	0.80	0.83	0.80	0.72	0.61	0.54	0.55	0.53	0.52	0.51	0.52	0.55	0.60
0.70	0.65	C	Mineral Wool	0.48	0.64	0.62	0.68	0.75	0.80	0.80	0.79	0.76	0.69	0.73	0.65	0.59	0.56	0.57	0.58	0.57	0.66

CODE NO. Papatya- TD 16x16x5/10 mm PR %20 DS 4000



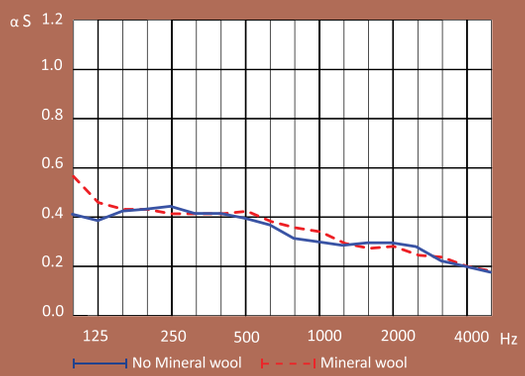


NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.75	0.70	C	No Mineral Wool	0.31	0.45	0.60	0.67	0.82	0.89	0.94	0.89	0.81	0.70	0.59	0.67	0.65	0.62	0.65	0.68	0.72	0.70
0.85	0.85	B	Mineral Wool	0.51	0.63	0.68	0.82	0.91	0.94	0.98	0.93	0.89	0.87	0.87	0.80	0.77	0.75	0.74	0.76	0.76	0.79

ACOUSTIC PANEL MODELS

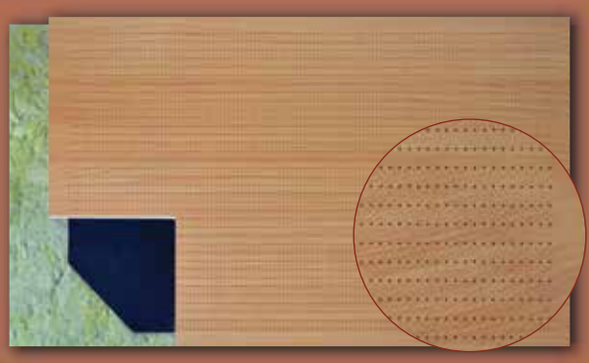
Micro Perforated Wall Panels

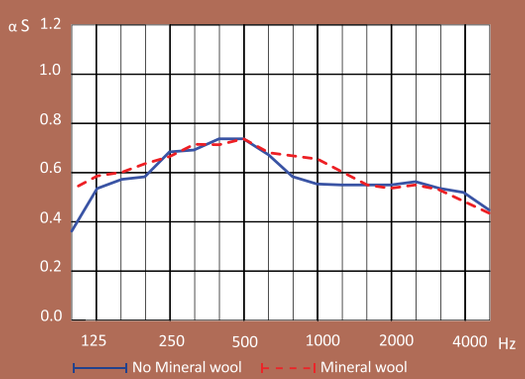
CODE NO.Micro 8x8x1mm PR %1 DS 16.000



NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.35	0.30	D	No Mineral Wool	0.41	0.39	0.43	0.44	0.45	0.42	0.42	0.40	0.37	0.31	0.30	0.28	0.29	0.29	0.27	0.21	0.19	0.17
0.35	0.30	D	Mineral Wool	0.59	0.47	0.44	0.44	0.42	0.42	0.41	0.43	0.39	0.36	0.34	0.29	0.27	0.28	0.24	0.23	0.19	0.16

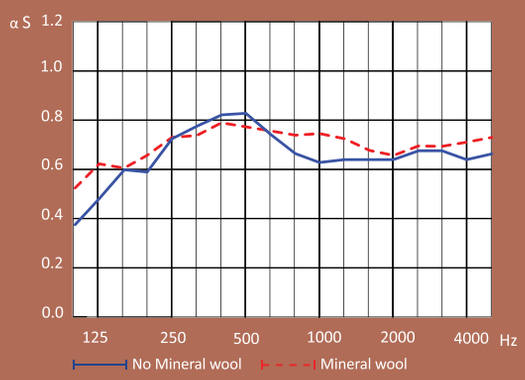
CODE NO.Micro 4x8x1mm PR %3 DS 32.000





NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.65	0.60	C	No Mineral Wool	0.36	0.54	0.59	0.60	0.71	0.72	0.77	0.77	0.70	0.60	0.57	0.56	0.57	0.57	0.58	0.55	0.53	0.45
0.65	0.60	C	Mineral Wool	0.54	0.60	0.62	0.66	0.69	0.74	0.74	0.77	0.71	0.70	0.68	0.62	0.57	0.55	0.56	0.54	0.50	0.44

CODE NO.Micro 4x4x1mm PR %5 DS 64.000

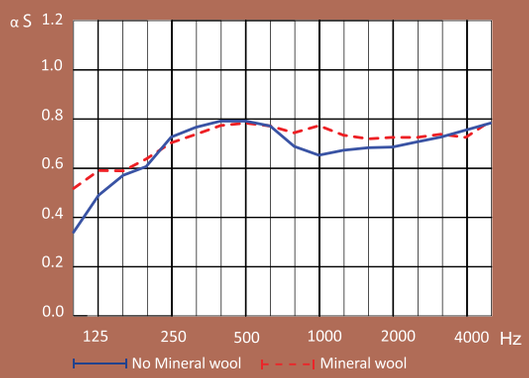


NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.70	0.70	C	No Mineral Wool	0.37	0.48	0.61	0.60	0.74	0.80	0.85	0.86	0.76	0.68	0.64	0.66	0.65	0.65	0.69	0.69	0.65	0.68
0.75	0.75	C	Mineral Wool	0.52	0.63	0.62	0.67	0.75	0.76	0.81	0.80	0.78	0.76	0.77	0.74	0.70	0.67	0.71	0.71	0.73	0.75

ACOUSTIC PANEL MODELS

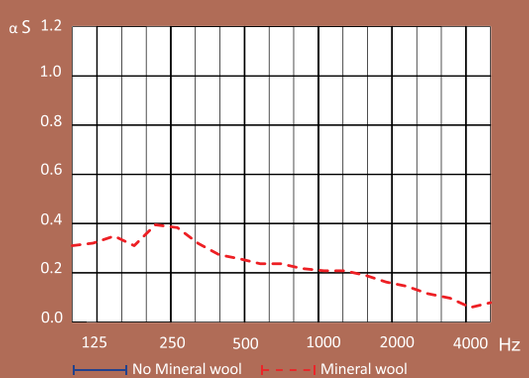
Micro Perforated Wall Panels

CODE NO. Micro 2x2x1 mm PR %10 DS 128.000



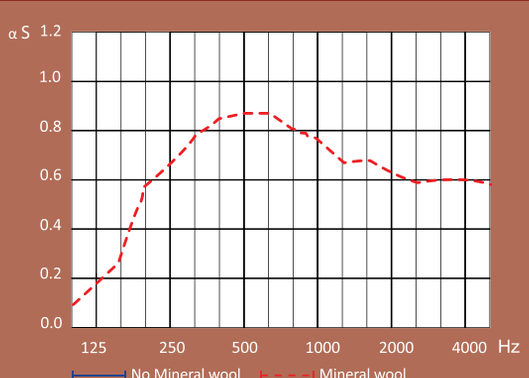
NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.75	0.75	C	No Mineral Wool	0.35	0.51	0.60	0.64	0.77	0.81	0.84	0.84	0.82	0.73	0.69	0.71	0.72	0.72	0.75	0.77	0.80	0.83
0.80	0.80	B	Mineral Wool	0.54	0.62	0.62	0.67	0.74	0.78	0.82	0.83	0.82	0.79	0.82	0.78	0.76	0.77	0.77	0.78	0.77	0.84

CODE NO. Micro 4x4x0.5 mm PR %3 DS 128.000



NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.35	0.20	D	Mineral Wool	0.31	0.40	0.39	0.32	0.27	0.25	0.23	0.23	0.21	0.20	0.20	0.18	0.15	0.13	0.10	0.08	0.04	0.06

CODE NO. Micro 1.9x1.9x0.5 mm PR %6 DS 294.000

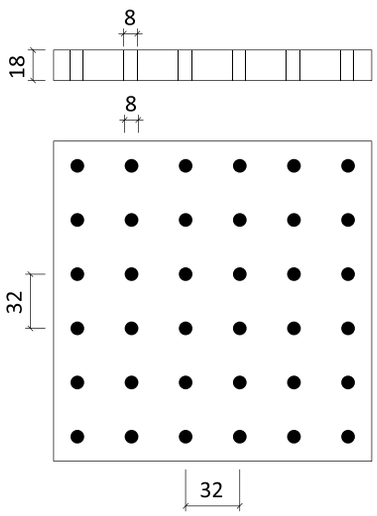


NRC	αw	C	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.75	0.77	B	Mineral Wool	0.14	0.24	0.32	0.63	0.73	0.85	0.91	0.93	0.93	0.88	0.82	0.73	0.73	0.69	0.64	0.66	0.66	0.65

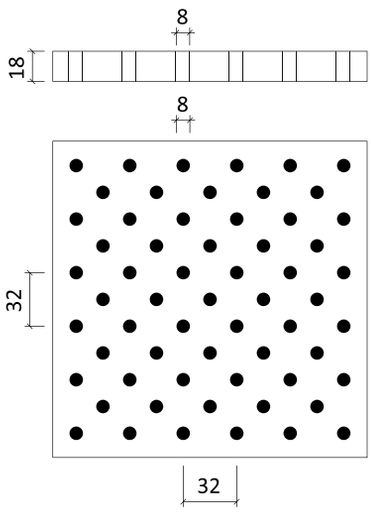
ACOUSTIC PANEL MODELS

Perforated Panel Details

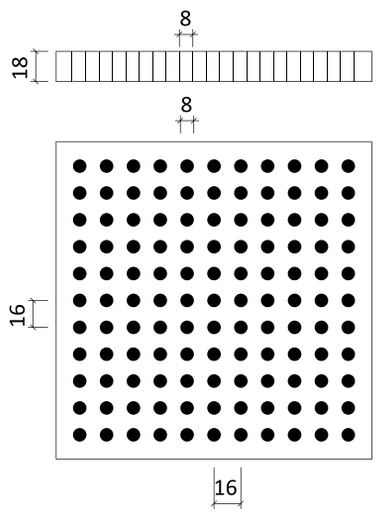
TD 32x32x8 mm DS 1000



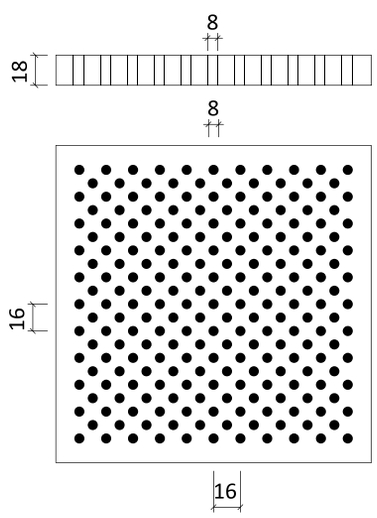
TD 32x32x8 mm DS 2000



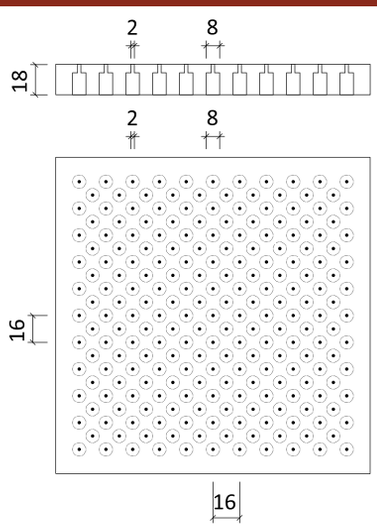
TD 16x16x8 mm DS 4000



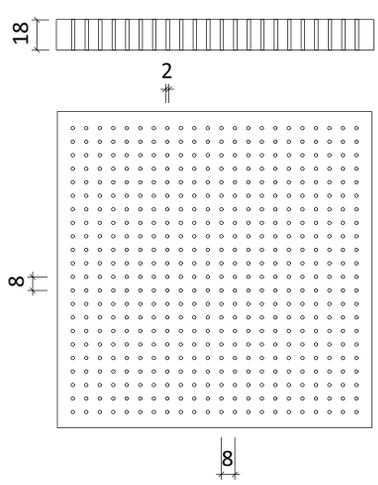
TD 16x16x8 mm DS 8000



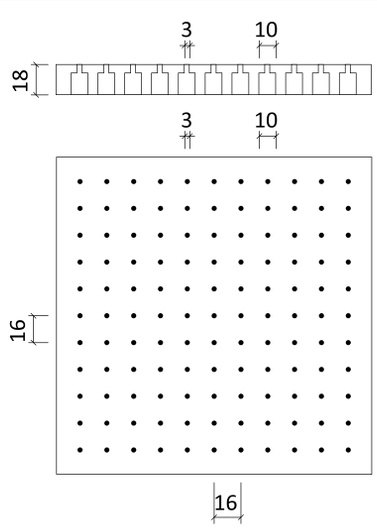
KD 16x16x2/8 mm DS 16.000



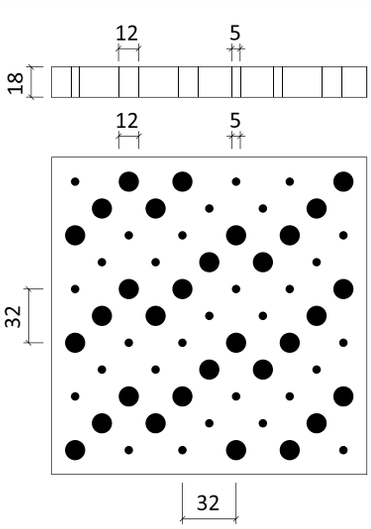
TD 8x8x2 mm DS 16.000



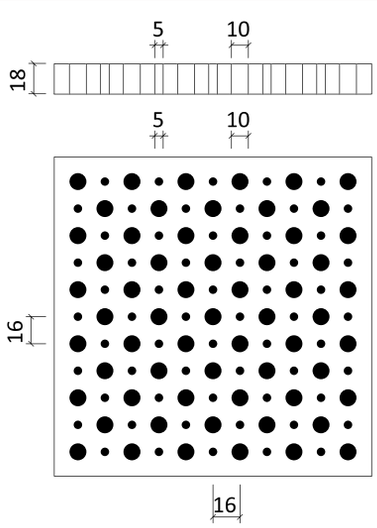
KD 16x16x3/10 mm DS 8000



Z-TD 32x32x 5/12 mm DS 2000



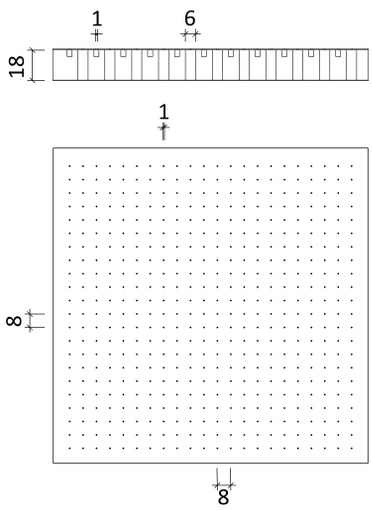
Papatya-TD 16x16x 5/10 mm DS 4000



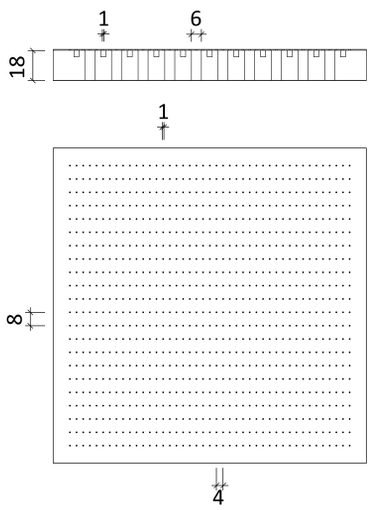
ACOUSTIC PANEL MODELS

Perforated Panel Details

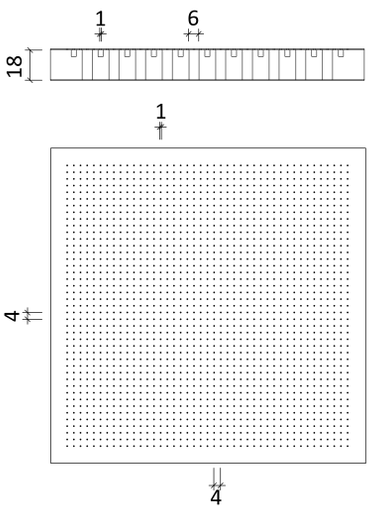
Micro 8x8x1mm DS 16.000



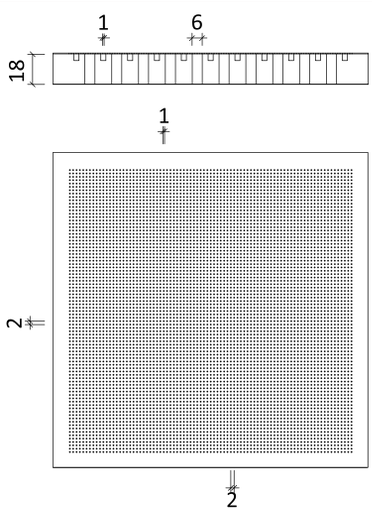
Micro 4x8x1mm DS 32.000



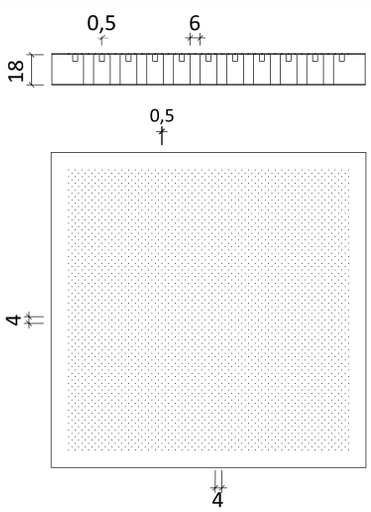
Micro 4x4x1mm DS 64.000



Micro 2x2x1mm DS 128.000



Micro 4x4x0,5mm DS 128.000



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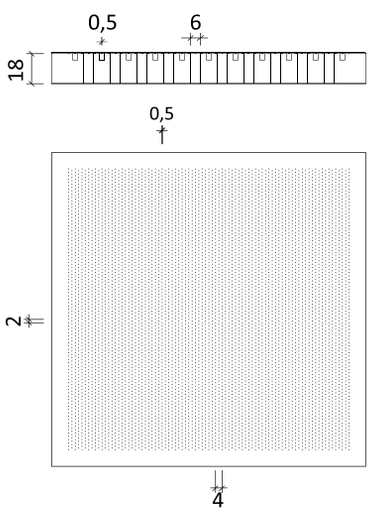
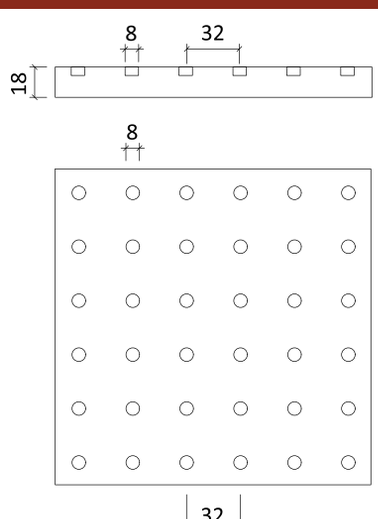
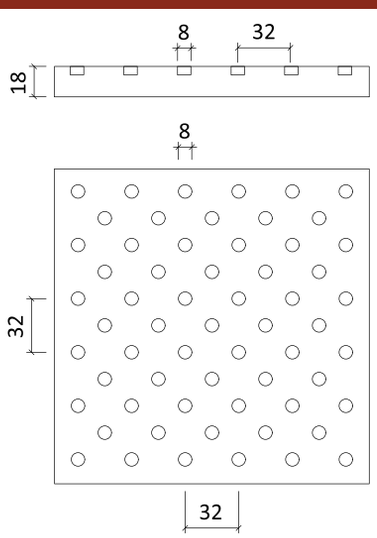


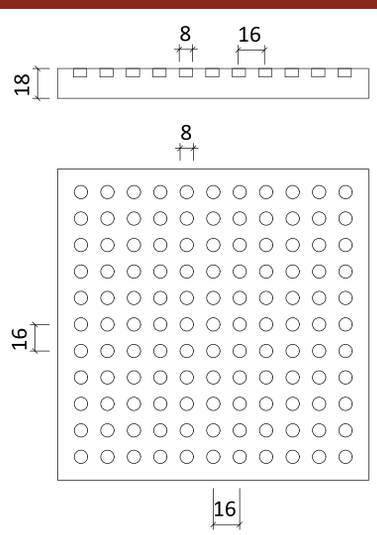
YST DLK 32x32



YST DLK 32x32 ÇP



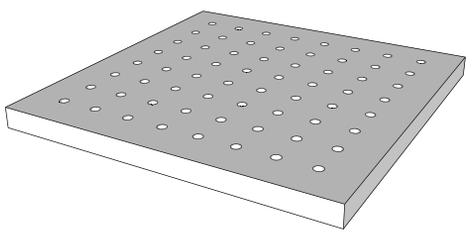
YST DLK 16x16

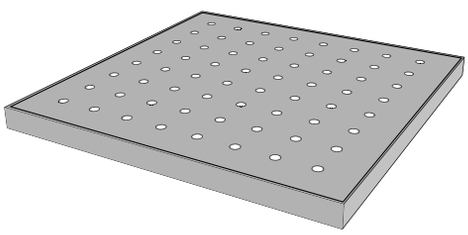


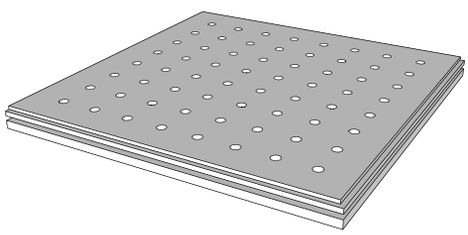
ACOUSTIC PANEL MODELS

Perforated Panel Details

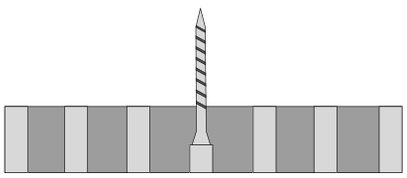
Flat, Non-processed side | Side Banded | Four Side Channeled

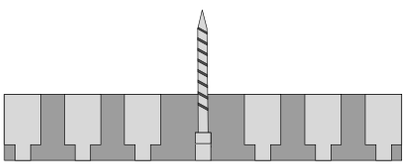






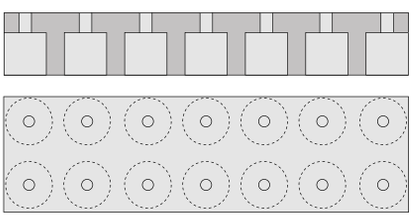
Perforated Panel Assembly Details





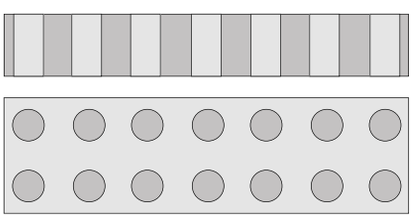
The perforated panels can be easily hung on the wall. We have special screw systems according to the acoustical hole diameters. We have different types of screws for metal, wood and plastered wall applications.

Perforation Process Properties



Stepwised Perforation

Stepwised perforated panels are prepared by drilling in small diameters from the front and large diameters from the rear surfaces and perforated in double chambers. Due to this process, on the front side of the panel, compared to large holes, smaller holes with a better appearance and aesthetics are shown. Stepwised perforated panels provide higher sound absorption under lower frequencies.



Full perforation

Full perforated panels can be drilled as much as the thickness of the material. Holes may be drilled with larger diameters according to model properties thus perforation is adjusted accordingly. Emission values are higher than those of grooved and stepwised perforated acoustic models. Full perforated panels provide higher sound absorption under medium and higher frequencies.

Taksim Acıbadem Hospital
Waiting Lounge
Acoustic Wall and Ceiling Panels
Model: 3F 13A DS 4000
Project: Metex Design
Istanbul 2015

Marmara University
Faculty of Theology Mosque and Cultural Center
Model : Acoustic Reflective Wooden Panel
Project: Hassa Architecture
Istanbul 2015

ACOUSTIC PANEL MODELS

Reflective Panel Details

DESCRIPTION

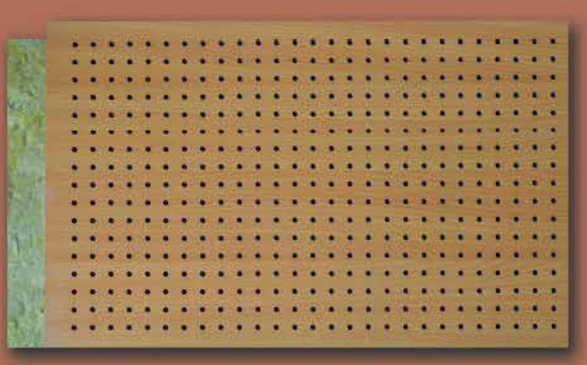
The reflectiveive panels produced in order to direct the required sounds and to reinforce by diffusing the ways of the sound in volume. In the reflective panels, the process is applied only on the front surface. The reflective models are divided into two groups as grooved and perforated.The panels do not absorb the sound as there is no hole at the back of the panels. The panels absorb some amount of the sound and ensure that the sound is reflected with quality to the accurate direction.

Al Fateh University, Auditorium classes
Model: YST – KNL / 3 x 13
Project: Poem Construction
Libya 2008

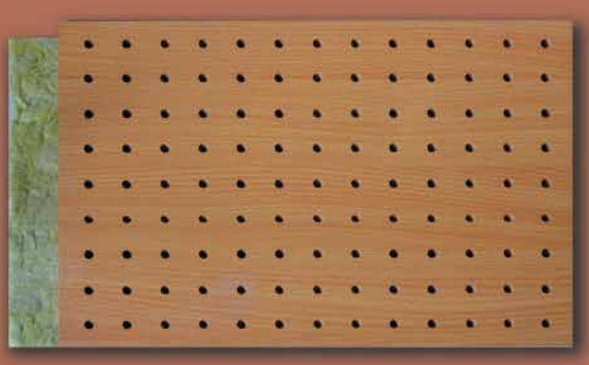
CODE NO.YST- KNL / 3x5

CODE NO.YST- KNL / 3x13

CODE NO.YST - DLK / 16x16



CODE NO.YST- DLK / 32x32



You can see details of reflective panels at pages 27 and 35.

ACOUSTIC PANEL MODELS

Fire Retardant Acoustic Panels

In accordance with General Fire Safety Regulation, the building materials which are used for indoor spaces where the population is intensive should be supplied from the materials which have high fire resistance.
In order to minimize the noise and resonance on the wall covering of the internal surfaces of the buildings, decorative acoustic panels are being used commonly, but these materials are highly combustive. This disadvantage encouraged our company as the leader of the sector, to develop and produce fire resistant acoustic panels.
Perfofire is produced by coating natural wood veneer on 2A-s1,d0 fire rated fiber plaster panel so that you can provide fire safety and acoustic performance in your spaces with a single product.

These panels are converted into acoustic panels by perforating and grooving them. Flames may pass through the perforated holes and reach interior space during a fire. In order to provide a better acoustic performance and absorption, due to mineral wool which is a standard application on the rear side of the panels, flames are prevented to pass through these holes and to expand.

Fiber plaster panels are not combustive, therefore flame particles and dripping do not exit. Therefore, smoke occurrence is at a lower level.
All our perforated panels are fire and acoustic accredited certificated.
Perfofire series acoustic panels have been developed as a result of these necessities and are subject to fabrication according to your project.

Best Of Its Class

Perfofire series panels have been certified as the Euro class value B-s1,d0 after being covered by wooden over the A2 - s1,d0 fiber plaster which is unreachable for wooden panel production values.

B Difficult flaming
s1 Extremely limited smoke generation
d0 No flame droplets and particles exist

Consumers Should Pay Attention To Scientific Results, Not The Speculations.

Euroclass Fire Classification

- **A1** No Combustion To Fire
- **A2** No Combustion To Fire, Extremely Limited Combustive
- **B** Very Limited Combustion To Fire
- **C** Limited Contribution To Fire
- **D** Acceptable Contribution To Fire (Limited Ignitability, Flame Spread)
- **E** Acceptable Contribution To Fire (Ignitability, Flame Spread)
- **F** No Performance Requirement

Classes For Smoke Development

- **s1** Little Or No Smoke Generation
- **s2** Medium Smoke Generation
- **s3** Heavy Smoke Generation

Classes For Flaming Droplets/Particles

- **d0** No Flaming Droplets/Particles Are Allowed
- **d1** No Flaming Droplets/Particles Persisting Longer Than A Given Time Allowed
- **d2** No Limitation

ACOUSTIC PANEL MODELS

General Panel Properties

Mdf- Mid Intensity Fiber Panels

The core material used in our products is the mdf panels. MDF consists of the initials of the word; Medium Density Fiberboard and means fiber with medium intensity. MDF is produced from the fibers of various trees and raw materials. MDF's physical structure is homogeneous. Fiber intensity of the points are same and equal. This makes the panels more resistant and easily processed.
Our company uses Mdf panels produced in compliance with E1 standards because such panels are appropriate for human health and are produced with anti- carcinogenic feature.
Standard, with various thicknesses, moisture resistant and fire resistant Mdf panels are available in our company's stocks currently.

Other Panels

We are able to produce various acoustic panels made of various plaster, chip and mdf panel as per your project and your requests.
Please consult Perforan Technical Office for technical information.

- Plasterboard
- Fireproof plasterboard
- Standard Mdf
- Flame retardant Mdf
- Moisture resistant Mdf
- Standard chipboard
- Flame reterdent chipboard
- Plywood

Colored MDF Boards

Colored panels are high moisture resistant non-toxic and eco-friendly material which is classified as A1(Low formal dehyde) there for this products mostly prefered by the nurseries, primary schools and children hospitals. Panels may be either manufactured in the form of plain and colorless surfaced panel or acoustic processed uncoated panels, furthermore they can be converted into coated acoustic panels. Compared to standard Mdf panels, its colored structure changes the internal raw mdf appearance of the acoustic panels and increases the deepness of the colors, thus makes the tissues to appear we have 7 different colored panels are produced according to the project.

No stock color is available. Colored panel is manufactured for your orders over 500 m².
Please consult Perfopan Technical Office for colored panel measures.

ACOUSTIC PANEL MODELS

Manufacture Information and Measures

Wall Panels – Measures and Surface Coatings

Surface coating	Mdflam Melamin	Laminate - Hpl	Lacquer painted Ral & Pantone	Natural Wooden Coated	Perfofire
Panel Thicknesses	18mm	19mm	19mm	19mm	13.5mm
Panel Fire Classes EN1-13501	D-s1,d0	D-s1,d0 / B-s2,d0	D-s1,d0 / B-s2,d0	D-s1,d0 / B-s2,d0	A2-s1,d0
Standard Board Sizes	Maximum (mm) 1830x3660 2100x2800 2100x3660 1220x2440	Maximum(mm) 1400x3660	Maximum(mm) 1830x3660 2100x2800 2100x3660 1220x2440	Maximum(mm) 1830x3660 2100x2800	Maximum(mm) 1200x2500
Ergonomic Sizes	600x600 600x1200 690x1390 600x1800	600x600 600x1200 600x1800	600x600 600x1200 690x1390 600x1800	600x600 600x1200 690x1390 600x1800	600x600 600x1200 690x1390 600x1800
Measures Used In Joined Panels	288x900 288x1200 288x1390 512x1390 576x1200 576x1800 576x3640 672x1390 672x2780 896x1200 896x1800 1024x2780 2080x2780	288x1200 576x1200 576x1800 576x3640	288x900 288x1200 288x1390 512x1390 576x1200 576x1800 576x3640 672x1390 672x2780 896x1200 896x2780 1024x2780 2080x2780	288x900 288x1200 288x1390 512x1390 576x1200 576x1800 672x1390 672x2780 896x1200 896x2780 1024x2780 2080x2780	288x1200 576x1200 288x2400
Measures Used in Perforated Panels	290x900 290x1200 290x1390 500x1390 600x600 600x1200 600x1800 600x3640 690x1390 690x2780 900x1200 900x1800 1040x2780 2080x2780	290x600 290x1200 290x1800 600x600 600x1200 600x1800 600x3640	290x900 290x1200 290x1390 500x1390 600x600 600x1200 600x1800 600x3640 690x1390 690x2780 900x1200 900x1800 1040x2780 2080x2780	290x900 290x1200 290x1390 500x1390 600x600 600x1200 600x1800 690x1390 690x2780 900x1200 900x1800 1040x2780 2080x2780	290x600 290x1200 290x2400 600x600 600x1200 600x2400

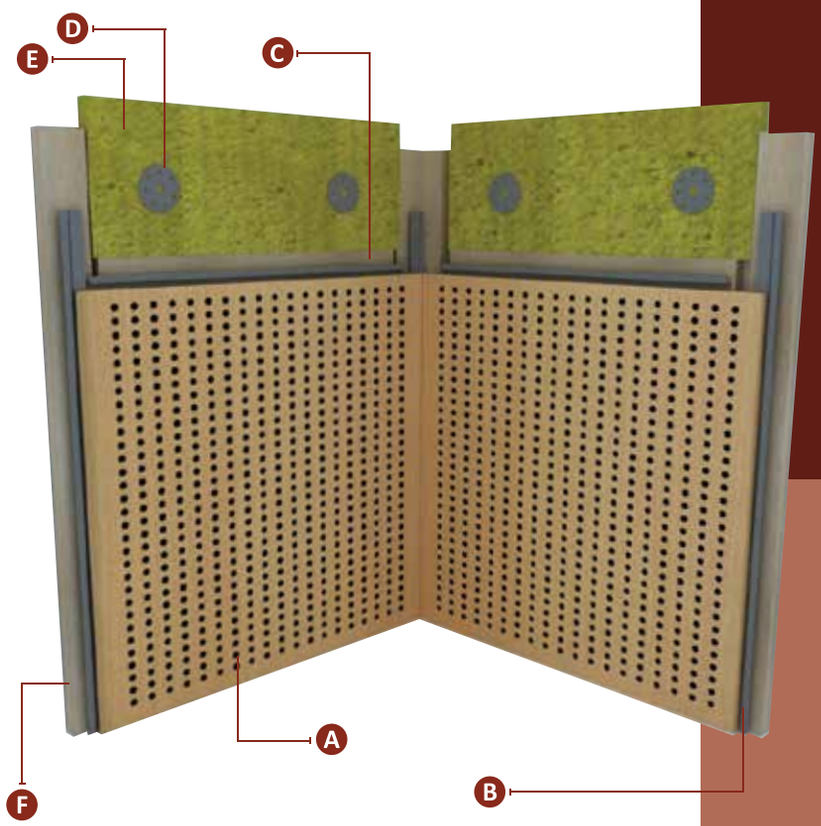
Measures referred above are appropriate for production. Production is available with special measures upon your request and project. Our production line provides a production by processing acoustically the maximum measures; 2100 mmx2800mmx1830mmx3660mm. For your requests based on different measures, please apply **PERFORAN** Technical Office.

Boards used in our production are tested and certified according to Euro Class, EN 13501-1 classification. For your projects based on fire resistant requests, B-S2, d0 Mdf and A2-S1,d0 fibrous plasterboard are being used. According to your request, extra fire retardant polished production is enabled for natural wood reneed panels. You may receive pre-information for the approval of the fire values according to your projects. You may claim international test certificates belonging to our fire resistant panels. You may check the remarks given in page 41 for Euro Class fire performance values.

ACOUSTIC PANEL MODELS

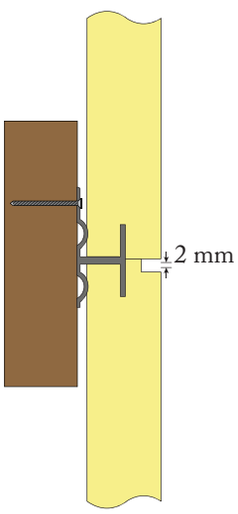
Installation Details

Installation Detail Of Wall Panels- Lejant

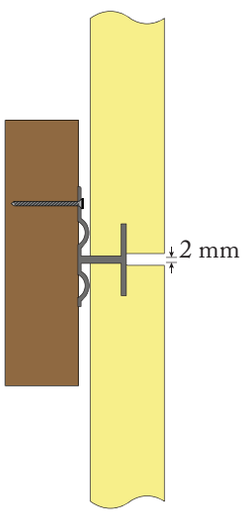


- A 18mm Perforated Acoustic Panel
- B TPX1- Profile (Vertical Side Carrier)
- C TPX1- Profile (Upper Side Carrier)
- D Rockwool Holder Mounting Rosette
- E Rockwool
- F Wooden Carcass

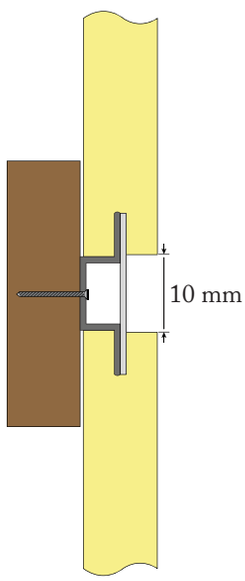
Installation Detail Of Wall Panels- Lejant



1 TPX1- Profile, Used For Vertical Panel Installation



2 TPX1- Profile, 2mm Metal Strip Panel Detail

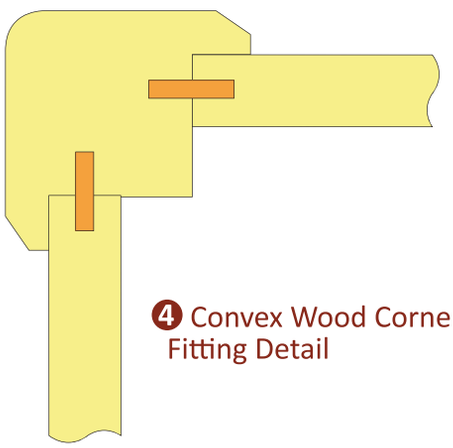


3 OMG1- Profile, 10mm Metal Strip Panel Detail

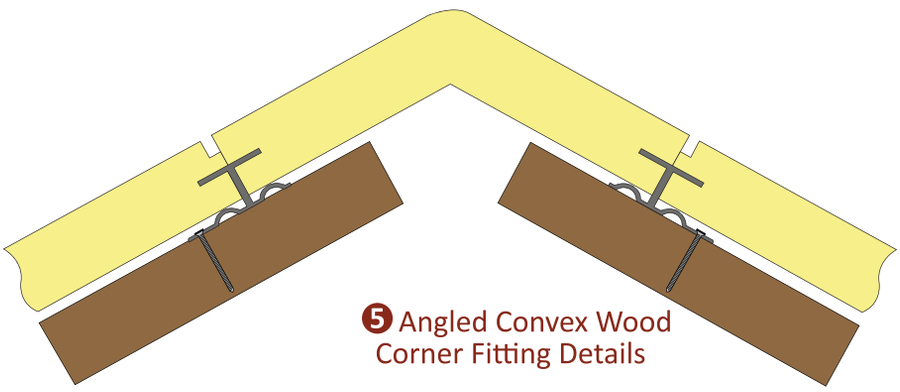
ACOUSTIC PANEL MODELS

Installation Details

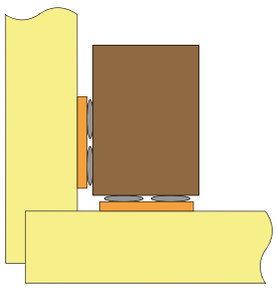
Internal and External Corner Turn Details



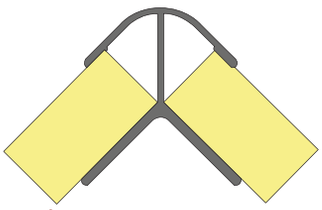
4 Convex Wood Corner Fitting Detail



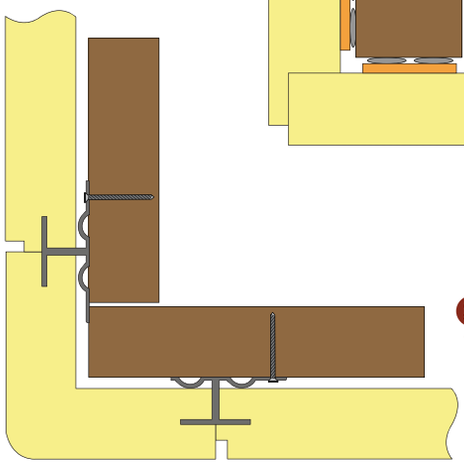
5 Angled Convex Wood Corner Fitting Details



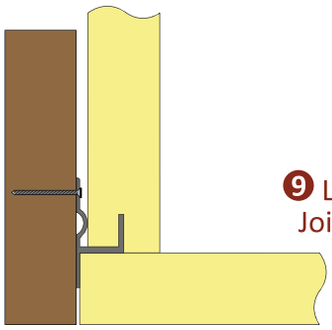
6 Convex Grooved Corner Joint Detail



7 MPK Corner Joint Detail With Metal Profile

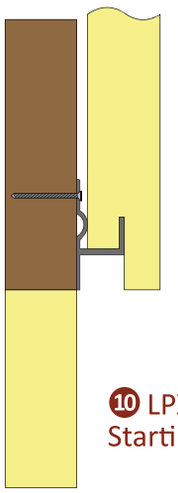


8 TPX1- Convex Corner Turn Joint Detail

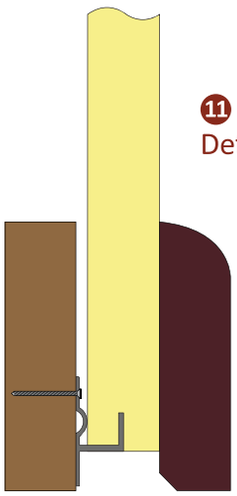


9 LPX1- Concave Corner Joint Detail

Ground Start Profile Details

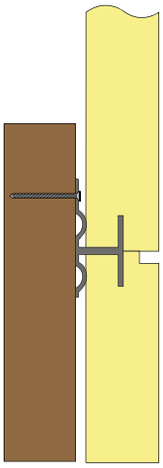


10 LPX1- Floor Profile Starting Detail



11 Floor Finishing Detail With LPX-1Profile

12 Floor Finishing Detail With TPX-1Profile



ACOUSTIC PANEL MODELS

Fabric Panels

Mimar Sinan Fine Art University
Prof.Sami Sekeroğlu Cinema-TV Center
Yesilcam1- Movie Theatre
Wooden and Fabric Acoustic Panel
Model: 2F 6A DS 4000
Istanbul 2011

DESCRIPTION

ACOUSTIC FABRIC: The acoustic fabrics used in front of the panels are woven from the materials resistant to corrosion, discoloration and fire. According to the request, we can cover any color you prefer.

For model and color options, consult with Perfopan technical office.
Our acoustic fabrics are internationally certified.

Acıbadem Maslak Hospital
Wooden and Fabric Acoustic Panel
Istanbul 2009

ACOUSTIC PANEL MODELS

Fabric Panels

Color Chart

KP 1 | KP 2 | KP 3 | KP 4 | KP 5 | KP 6

KP 7 | KP 8 | KP 9 | KP 10 | KP 11 | KP 12

KP 13 | KP 14 | KP 15 | KP 16 | KP 17 | KP 18

KP 19 | KP 20 | KP 21 | KP 22 | KP 23 | KP 24

KP 25 | KP 26 | KP 27 | KP 28 | KP 29 | KP 30

KP 31 | KP 32 | KP 33 | KP 34 | KP 35

Cermodern
Conference Hall

Akyurt Municipality
Conference Hall

Taksim Acıbadem Hospital
Resting Terrace

ACOUSTIC PANEL MODELS

Fabric Panels

Recep Tayyip Erdogan University
Faculty Of Arts and Sciences Classrooms
Wooden and Fabric Acoustic Panel
Model: 20mm and 40mm Fabric Panels
Rize 2016

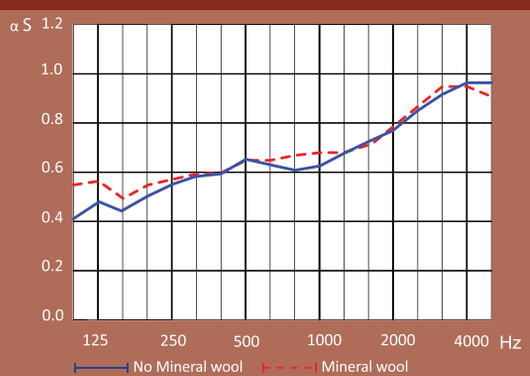
Mimar Sinan Fine Art University
Prof.Sami Sekeroğlu Cinema-TV Center
Yesilcam2- Movie Theatre
Wooden and Fabric Acoustic Panel
Model: 2F 6A DS 4000
Istanbul2011

ACOUSTIC PANEL MODELS

Fabric Panels

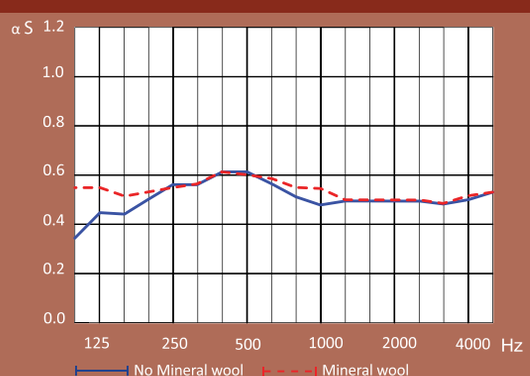
With our fabric panels you may create various visual effects in your spaces. Acoustic fabric panels' sides may be used as angular models as well. Angular model-sizes increase the aesthetics and visual quality of our panels.

CODE NO.FP 36mm DS 2000



NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.65	0.70	C	No Mineral Wool	0.41	0.48	0.44	0.51	0.56	0.59	0.61	0.67	0.65	0.62	0.64	0.70	0.75	0.80	0.89	0.96	1.01	1.01
0.70	0.70	C	Mineral Wool	0.56	0.57	0.45	0.55	0.58	0.60	0.61	0.66	0.67	0.69	0.70	0.70	0.73	0.81	0.90	0.99	1.00	0.95

CODE NO. FP 18mm DS 2000



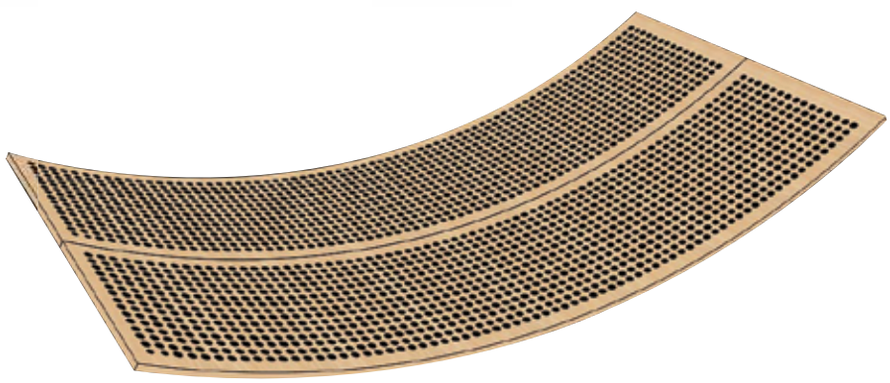
NRC	αw	Euro	FREQUENCY	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
0.55	0.55	D	No Mineral Wool	0.33	0.44	0.43	0.50	0.56	0.56	0.62	0.62	0.57	0.51	0.47	0.49	0.49	0.49	0.49	0.48	0.50	0.53
0.55	0.55	D	Mineral Wool	0.55	0.55	0.51	0.53	0.55	0.57	0.61	0.60	0.59	0.55	0.54	0.50	0.50	0.50	0.49	0.48	0.51	0.53

ACOUSTIC PANEL MODELS

Curved Panels

Akyurt Municipality
Conference Hall-Ankara

Aktau International
Airport-Kazakhistan



DESCRIPTION

Curved ceiling panels are improved by Perfopan engineers to provide best sound emission in a decorative way. These panels reflect sound clearly and qualified. According to the needs of space concave and convex panel provides solutions for both directing the acoustic reflection and decorative appearance.

USES

All multi-purpose halls, auditoriums, offices, meeting rooms, hotels, theatres, music halls, cinemas, restaurants, public buildings, gymnasiums.

TECHNICAL PROPERTIES

Curved panels have no standard dimension. Perfopan manufactures curved panels as custom made according to the projects.
Maximum dimension: 1400mmx3400mm
Consult with Perfopan technical office for the special dimensions and wood grain direction of the panels.
Melamine Panel: 8mm thickness, weight 6kg/m².
Wood Veneered Panel: 9mm thickness, weight 6.5kg/m².

FIREPROOF SPECIFICATIONS

A) 8mm melamine DIN 4102 – B2
B) 9mm wood veneered combustion delay polish applied – A2

ACOUSTIC EMISSION SPECIFICATIONS

We can produce different type of ceiling panels for different acoustic performances according to the projects.

ACOUSTIC PANEL MODELS

Curved Panels

Istanbul Technical University
The National Center for High Performance
Computing Curved Acoustic Wall Panels
Model : aF 28A DS 2000
Project: Sanal Arch
Istanbul 2012

ACOUSTIC PANEL MODELS

Flexible Acoustic Panels

DEFINITION:

Flexible acoustic panel is a product introducing innovative solutions where they are being used. Its flexible structure enables requested bending at the places. Its grooved structure which appears when bended contributes for the solution of the acoustic problems.

As its shape can change easily, it can be used as partition wall or decorative separator. You may create your own designs on the wall and ceilings and you may provide decorative appearances.

AREAS OF USE:

Can be used at indoor areas, banks, restaurants, cafe, office, store decorations, hotel halls, locking rooms, studios, secretary and waiting rooms, lounge and VIP areas.

TECHNICAL PROPERTIES:

Panel sizes: Wooden covered- Maximum 160 mm x 2200 mm.
Colored Mdf - Maximum 1250 mm x 250 mm
Panel thickness : 14.5 mm
Channel interval: 2F -14A
Panels' surface coatings may be manufactured as natural wooden coated and colored mdf.

FIRE RESISTANCE:

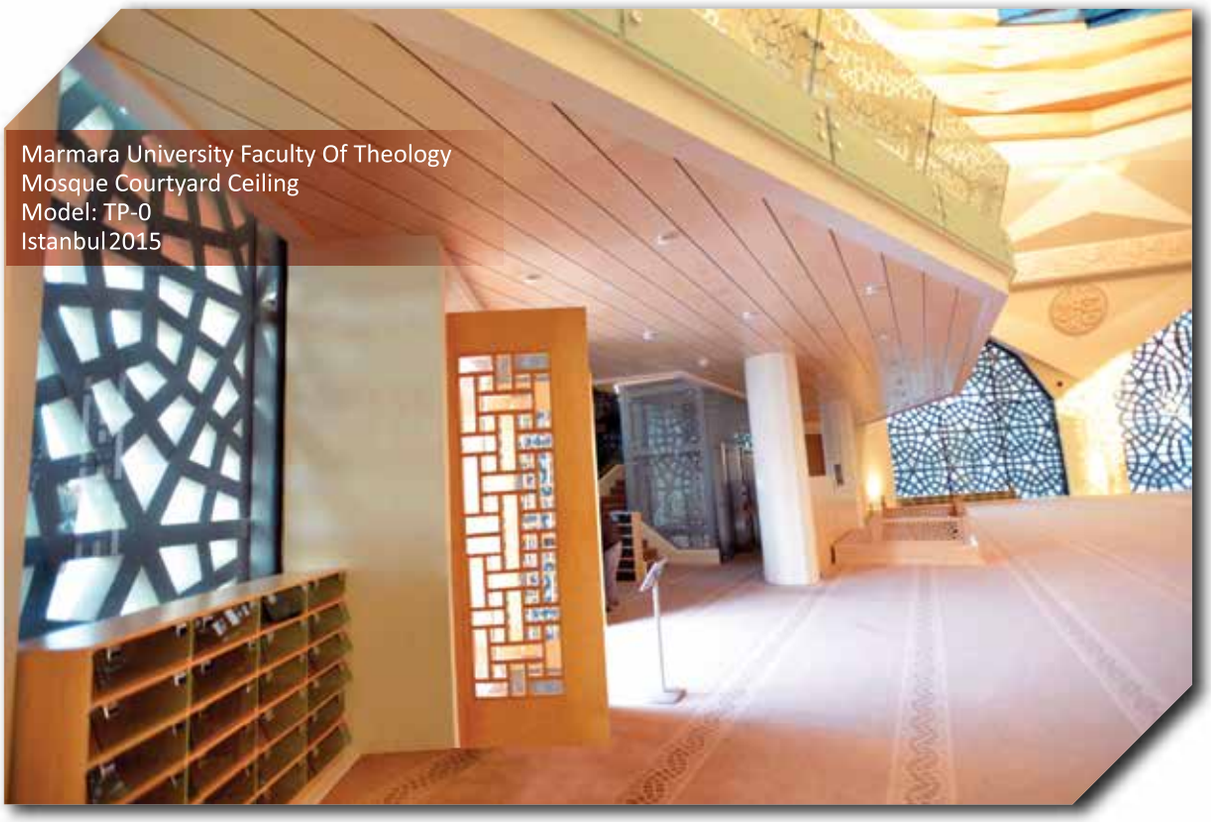
See the table on page 43 for panels' fire resistance.

ACOUSTIC CEILING PANELS

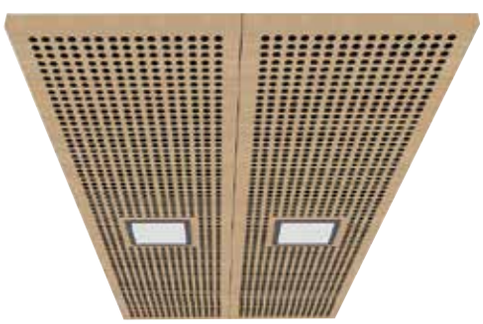
- Plaque Ceiling Panels
- Perforated Ceiling Tiles
- Slotted Ceiling Tiles
- Installation Details

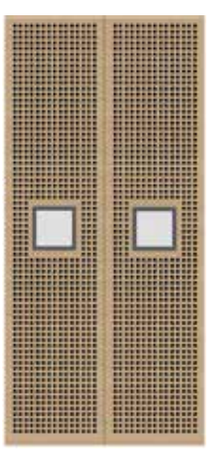
ACOUSTIC CEILING PANELS

Plaque Ceiling Panels



Marmara University Faculty Of Theology
Mosque Courtyard Ceiling
Model: TP-0
Istanbul 2015





DESCRIPTION

Plaque ceiling panels are the panels improved by Perfopan engineers to provide best sound emission in a decorative way.

USES

All multi-purpose halls, auditoriums, offices, meeting rooms, hotels, theatres, music halls, cinemas, restaurants, public buildings, gymnasiums, religious areas.

TECHNICAL PROPERTIES

Standard dimensions: 280mmx1200mm, 600mmx1200mm
Consult with Perfopan technical office for the special dimensions and wood grain direction of the panels.
Melamine Panel: 18mm thickness, weight 13.5kg/m²
Wood Veneered Panel: 18mm thickness, weight 14kg/m²

FIREPROOF SPECIFICATIONS

A) 14mm melamine DIN 4102 – B2
B) 15mm wood veneered combustion delay polish applied – A2

FIRE RESISTANCE:

See the table on page 43 for panels' fire resistance.

ACOUSTIC EMISSION SPECIFICATIONS

We can produce different type of ceiling panels for different acoustic performances according to the projects.

ACOUSTIC CEILING PANELS

Plaque Ceiling Panels

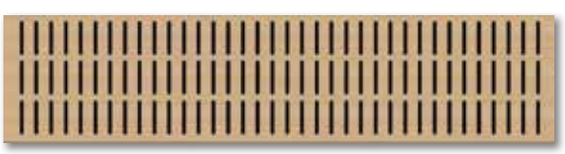
Ceiling Panel Models

TP - 0

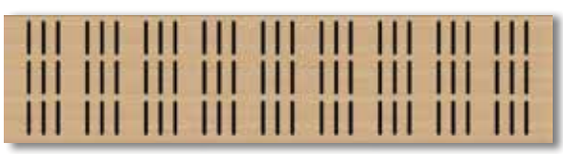
TPD - 01

TPD - 02

TPD - 03

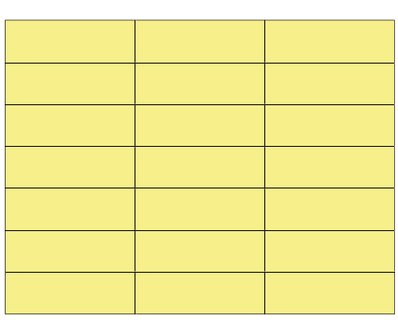


TPS - 01

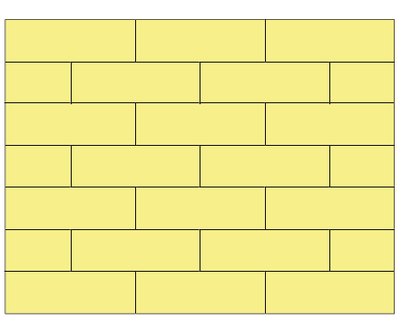


TPS - 02

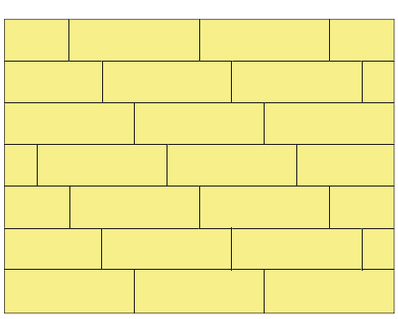
Ceiling Installation – Tile Cladding Application Options



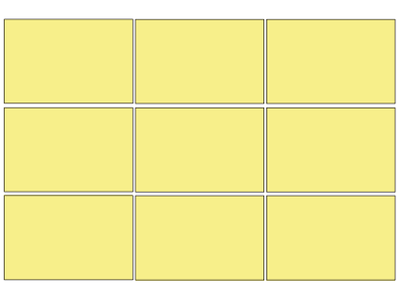
PD-1



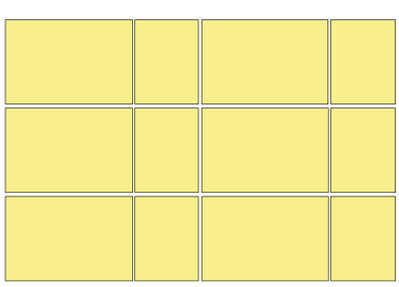
PD-2



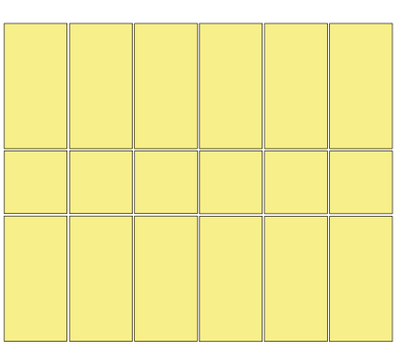
PD-3



PD-4



PD-5



PD-6

According to your request, all plaque ceiling panel models are produced in such a manner that they can be applied as wall panel.

ACOUSTIC CEILING PANELS

Perforated Ceiling Tiles

DESCRIPTION

Perforated ceiling panels are the panels improved by Perfopan engineers to provide best sound emission in a decorative way.

USES

All multi-purpose halls, auditoriums, offices, meeting rooms, hotels, theatres, music halls, cinemas, restaurants, public buildings, gymnasiums.

TECHNICAL PROPERTIES

Standard dimensions: 600mmx600mm, 1200mmx600mm
Consult with Perfopan technical office for the special dimensions and wood grain direction of the panels.
Melamine Panel: 12mm thickness, weight 9kg/m²
Wood Veneered Panel: 13mm thickness, weight 9.5kg/m²

FIREPROOF SPECIFICATIONS

A) 12mm melamine DIN 4102 – B2
B) 13mm wood veneered combustion delay polish applied – A1

ACOUSTIC EMISSION SPECIFICATIONS

We can produce different type of ceiling panels for different acoustic performances according to the projects.

COMPATIBLE MODELS

T24 Plane, T24 Stepwised, T15 Grooved, T15 Stepwised, T15 Angle.

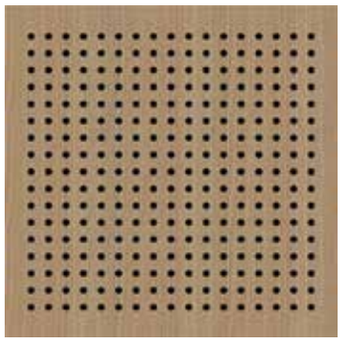
ACOUSTIC CEILING PANELS

Perforated Ceiling Tiles

CODE NO. TKD 60x60 MODELS

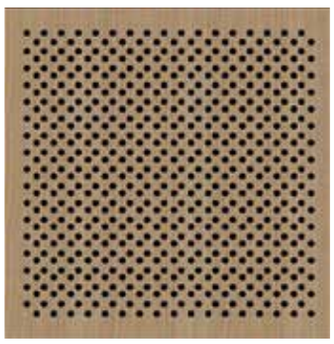
FLAT - 00

TKD - 01



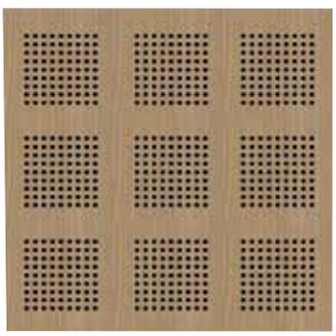
TKD - 02

TKD - 03



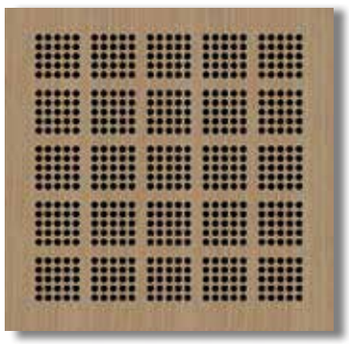
TKD - 04

TKD - 05

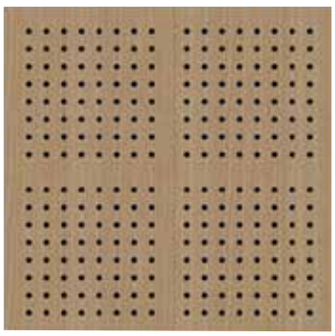


TKD - 06

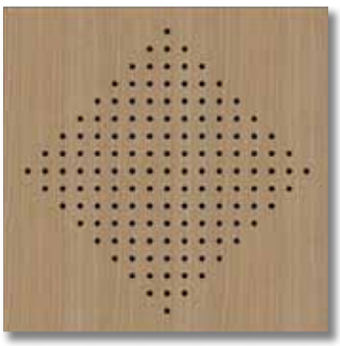
TKD - 07



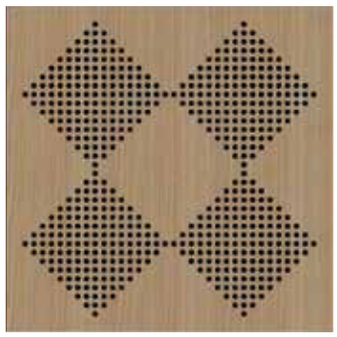
TKD - 08



TKD - 09



TKD - 10



TKD - 11

ACOUSTIC CEILING PANELS

Slotted Ceiling Tiles

DESCRIPTION

Slotted ceiling panels are the panels improved by Perfopan engineers to provide best sound emission in a decorative way.

USES

All multi-purpose halls, auditoriums, offices, meeting rooms, hotels, theatres, music halls, cinemas, restaurants, public buildings, gymnasiums.

TECHNICAL PROPERTIES

Standard dimensions: 600mmx600mm, 1200mmx600mm
Consult with Perfopan technical office for the special dimensions and wood grain direction of the panels.

Melamine Panel: 12mm thickness, weight 9kg/m²

Wood Veneered Panel: 13mm thickness, weight 9.5kg/m²

FIREPROOF SPECIFICATIONS

A) 12mm melamine DIN 4102 – B2

B) 13mm wood veneered combustion delay polish applied – A2

ACOUSTIC EMISSION SPECIFICATIONS

We can produce different type of ceiling panels for different acoustic performances according to the projects.

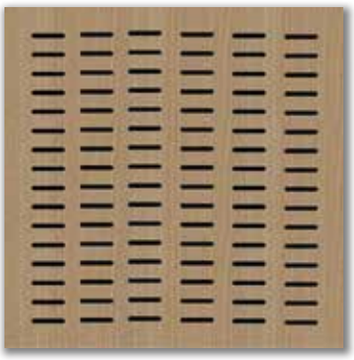
COMPATIBLE MODELS

T24 Plane, T24 Stepwised, T15 Grooved, T15 Stepwised, T15 Angle.

ACOUSTIC CEILING PANELS

Slotted Ceiling Tiles

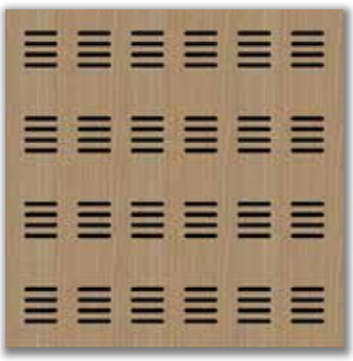
CODE NO. TKS 60x60 MODELS



TKS - 01

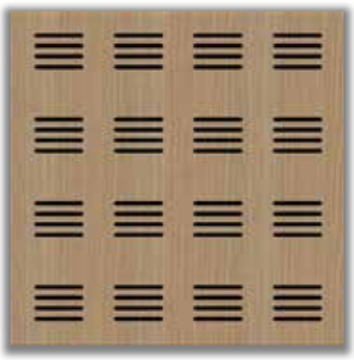
TKS - 02

TKS - 03

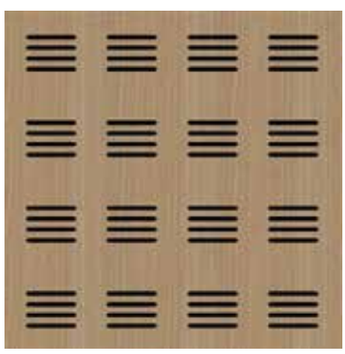


TKS - 04

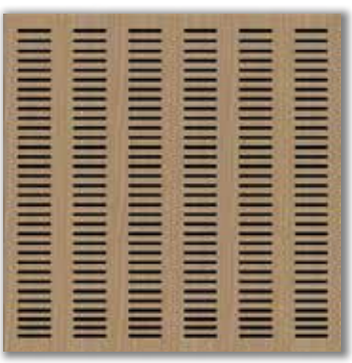
TKS - 05



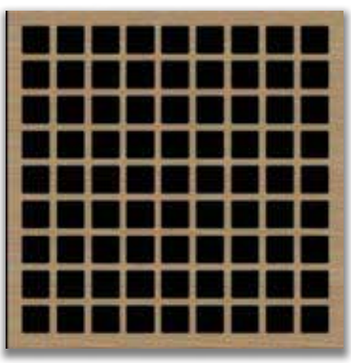
TKS - 06



TKS - 07



TKS - 08



TKS - 09

TKS - 10

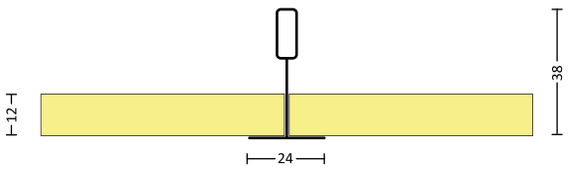
TKS - 11

TKS - 12

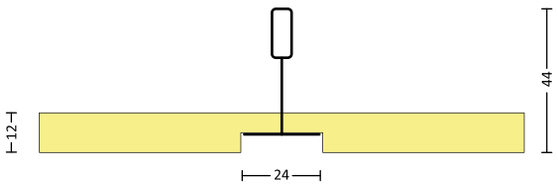
ACOUSTIC CEILING PANELS

Installation Details

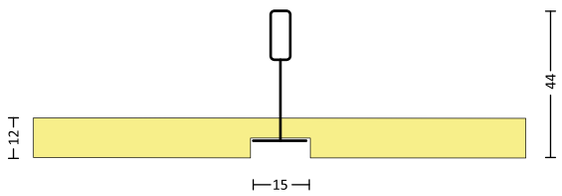
Modular Ceiling Systems



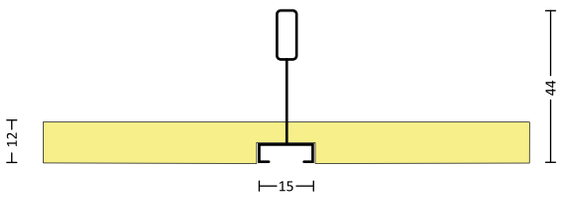
T 24 FLAT



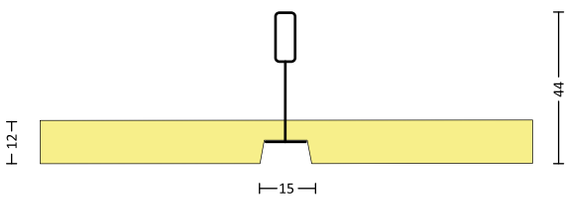
T 24 STEPWISED



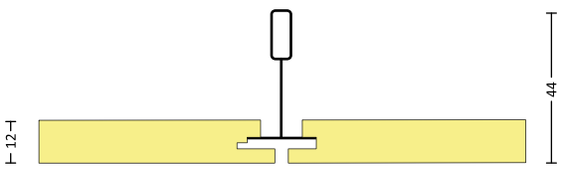
T 15 STEPWISED



T 15 FLUTED

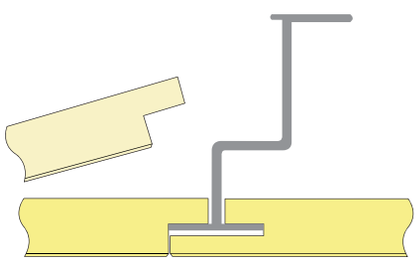


T 15 ANGULAR

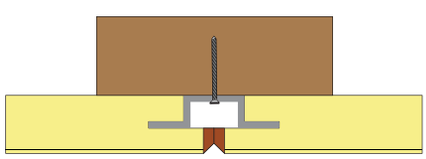


SHADOW LINE

Special Ceiling Systems



Disassembled ceiling profile system provides you easy access to any installation between the existing furniture and the system itself by panel modules which may be easily removed and assembled. It's the most preferred profile model in the corridors.



Fixed ceiling installation details.

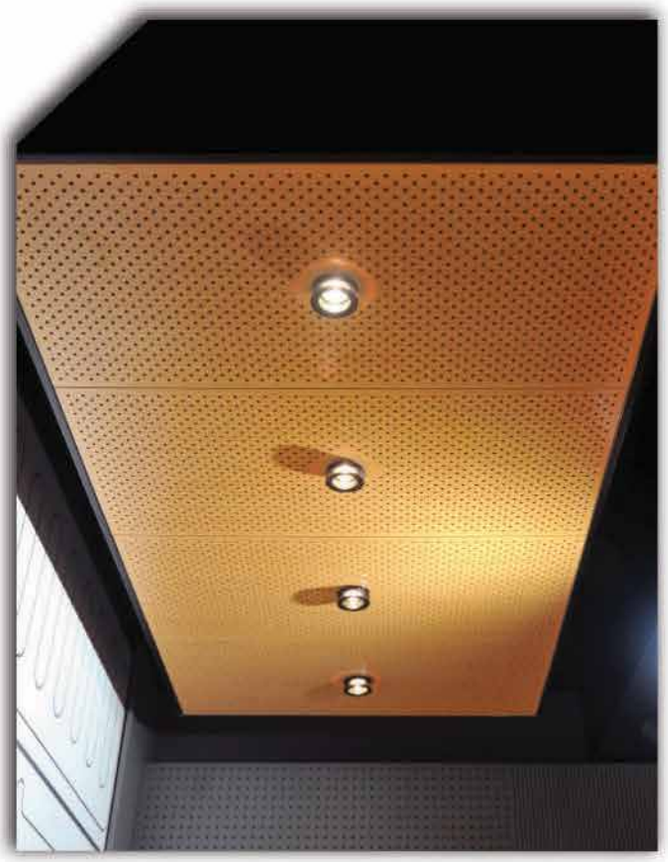
Modular Ceiling Carring Systems

For modular 600 mm x 600 mm measure group wooden tiles, metal load carring systems defined above are being used. Standard metal carriers may be painted with wooden pattern or plane RAL colors according to your request.

Special Ceiling Carring Systems

These are the profile models carrying plate ceiling panel models. Carring systems are used to carry long and special size plate ceiling panels. 3656 mm or 2780 mm size plate ceiling model is assembled safely with this model. Compared to other carring systems, wooden panels can be assembled embedded while metal carriers are not seen. Curvilinear ceiling panels can be produced according to your sizes requested and your project.

ACOUSTIC CEILING PANELS



Akyurt Municipality
Conference Hall
Model: TPD-1
TD 32x32x8mm DS 2000
Ankara 2011

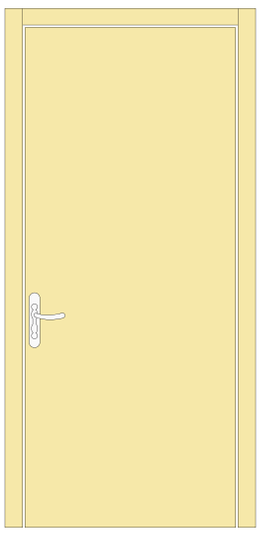
ACOUSTIC WINDOW and DOORS

- Acoustic Doors
- Sound Insulation Doors
- Acoustic Window

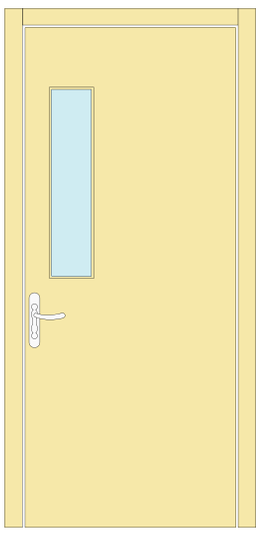
ACOUSTIC WINDOW and DOORS

Acoustic Doors

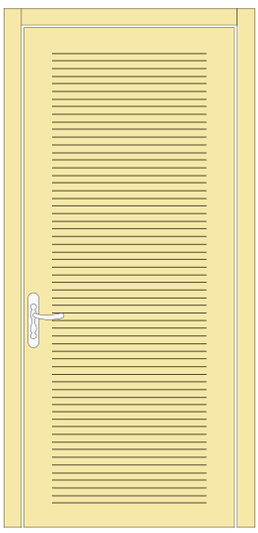
Acoustic Single-Leaf Door Models



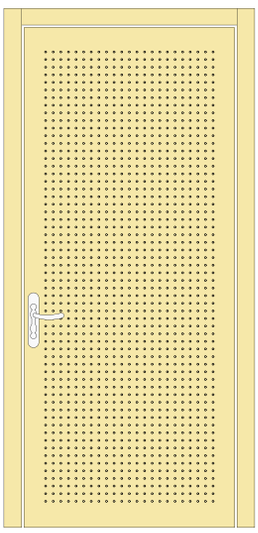
AK - 1



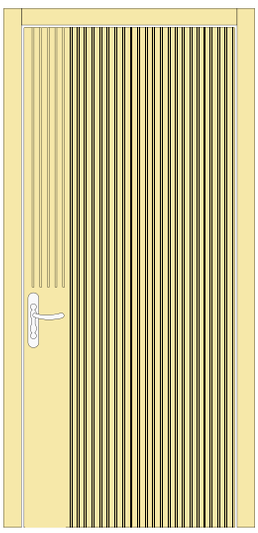
AK - 2



AK - 3

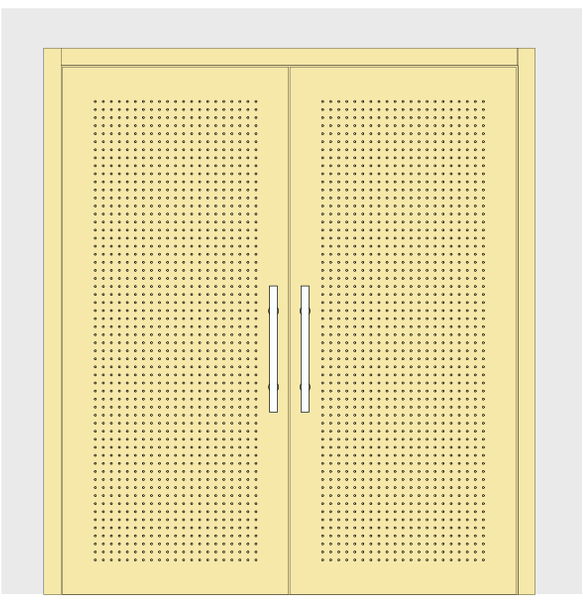


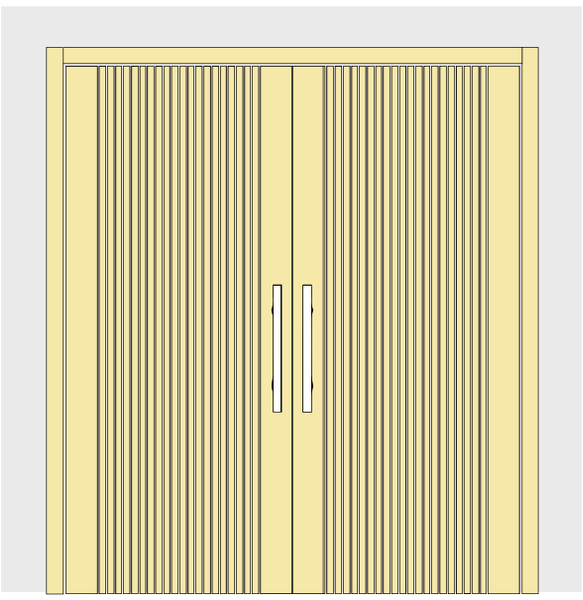
AK - 4



AK - 5

Acoustic Double-Leaf Door Models





When the entrance and exit doors of the acoustic wood panel coated walls are made of regular flat panel doors, it may cause echo and loss of sound quality. Aesthetically, different type of doors on a acoustic panel coated wall cause architectural disorder.

We are producing acoustic doors according to demands of our customers. Door surfaces which looked to the hall are produced compatible with the selected wall panels. Our all acoustic wall panel surfaces are implemented to our wooden sound insulation door models.

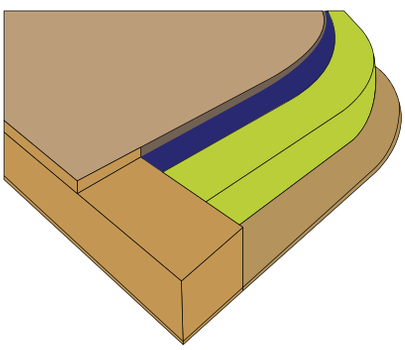
ACOUSTIC WINDOW and DOORS

Sound Insulation Doors

In the spaces where sound isolation is performed, another important element supplementing the isolation as much as the walls and ceilings is doors.
Sound insulation doors prevent noise pollution. We have three types of sound insulation doors all models are applicable to any dimensions.

USES:
Law offices, Meeting rooms, Sleep study rooms , Hospitals, Hotels, Polis interrogation rooms, Recording studios, Dubbing rooms, TV studios, Radio broadcasting rooms Psychiatric clinic, Private rooms, Court rooms, Government buildings, Cinemas, Music halls, Concert halls, Main doors of multi-purpose halls, doors of simultaneous translation cabins.

Sound Insulation Models



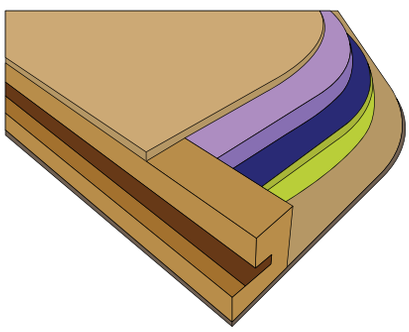
ASY - KAP 1

DESCRIPTION: They are designed as wood sound isolation door and are soundproof. Two types of different soundproof materials are used inside the massive frame of 50mm thickness. Sound isolation doors must be used together with threshold profile for sound absorption.

TECHNICAL PROPERTIES: Standard use for indoors are; 800mmx2000mm, 900mmx2000mm, 1000mmx2000 mm. Standard use for main doors are; 970mmx2080 mm, 1070mmx2080mm, 117mmx2080 mm
All dimensions can be produced as double leaf door.

Sound Isolation Value: 28dB.

Fire Resistance: Fire-resistance durations are increased with fireproof laminated surface or special polish application.



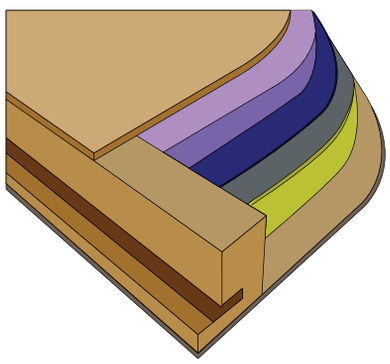
ASY - KAP 2

DESCRIPTION: They are designed as wood sound isolation door and are soundproof. Three types of different soundproof materials are used inside the massive frame of 64mm thickness. Sound isolation doors must be used together with threshold profile for sound absorption.

TECHNICAL PROPERTIES: Standard use for indoors are; 800mmx2000mm, 900mmx2000mm, 1000mmx2000mm. Standard use for main doors are; 970mmx2080 mm, 1070mmx2080mm, 117mmx2080 mm
All dimensions can be produced as double leaf door.

Sound Isolation Value: 42dB.

Fire Resistance: Fire-resistance durations are increased with fireproof laminated surface or special polish application.



ASY - KAP 3

DESCRIPTION: They are designed as wood sound isolation door and are soundproof. Four types of different soundproof materials are used inside the massive frame of 76mm thickness. Sound isolation doors must be used together with threshold profile for sound absorption.

TECHNICAL PROPERTIES: Standard use for indoors are; 800mmx2000mm, 900mmx2000mm, 1000mmx2000mm. Standard use for main doors are; 970mmx2080 mm, 1070mmx2080mm, 117mmx2080 mm.
All dimensions can be produced as double leaf door.

Sound Isolation Value: 46dB.

Fire Resistance: Fire-resistance durations are increased with fireproof laminated surface or special polishapplication.

ACOUSTIC WINDOW and DOORS

Acoustic Windows

Perfopan acoustic windows provide professional solutions where transparency is desired. They are used because they prevent light reflections and have high quality soundproof. Double independent framed windows are sealed with special gasket.

According to proper wall thickness of buildings, if the distance between independent frames are approximately 200 mm, Perfopan Acoustic Window reaches to 60dB soundproof.

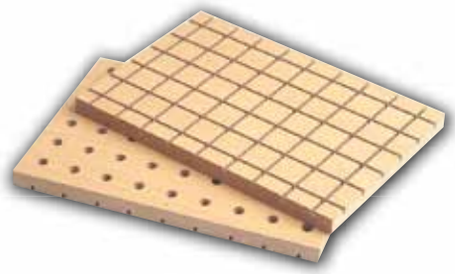
Glass specifications: 8mm, 10mm acoustic laminated glass.

USES:
Law offices, Meeting rooms, Sleep study rooms , Hospitals, Audiometric testing rooms, Hotels, Polis interrogation rooms, Recording studios, Dubbing rooms, TV studios, Radio broadcasting rooms Psychiatric clinic, Private rooms, Court rooms, Government buildings, Cinemas, Music halls, Concert halls, Stadium, Main doors of multi-purpose halls, doors of simultaneous translation cabins.

Marmara University Faculty Of Theology
Prof.Dr.Rasit Kucuk Auditorium
Project: Hassa Architecture
Istanbul 2015

TECHNICAL INFORMATIONS

Why should we use acoustic wooden panels?

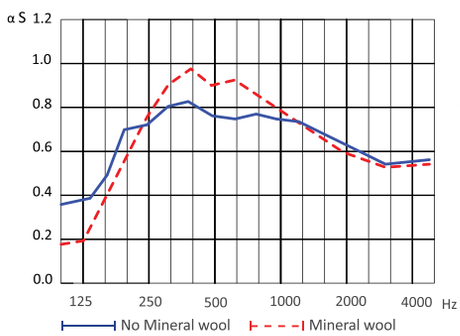


There is noise in every environment we live in. Isolation or regulation of noise provides better communication among people. It is a comfort to hear the sounds clearly. Our products are the materials that purify the hearing quality from noise and ensure the sounds are clear. Wood has a warmer appearance than other metal panels, plasterboard and rockwool panels which are cold materials. Other materials do not provide the visual quality which is provided by wood in decoration.

Areas of Use

Our products are used in theater halls, concert halls, cinema halls, hotel lobbies, mosques, churches, airport and bus terminals, train stations, subway and train cars, subway stations, yachts and ship halls, music recording studios, entertainment centers, music halls, hotels, bars, night clubs, big restaurants, libraries, classrooms, congress halls, wedding halls, big shopping malls, hotel meeting rooms, administration buildings, open offices, sport centers, indoor swimming pools, polygons, multi-purpose halls, wireless operating rooms, radio stations, sound recording studios, TV studios, film sets, university halls, law courts, and hearing courts audiometric testing rooms.

Acoustic Graph Definitions

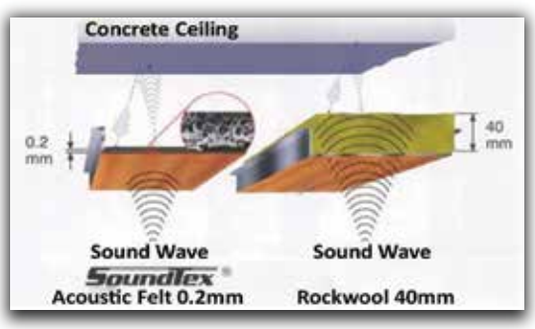


X – axis shows the quantity of the resonance frequency and the unit is Hertz (Hz).

Y – axis shows the quantity of the acoustic absorption coefficient and the unit is called as Sabin (αS).

SoundTex® - Acoustic Fabric Information

In order to increase the acoustic absorption quantity of the panels, a special thin felt made of composit material is used at the back of the panels.



One surface of this felt is adhesive and it is sticked on the panel by heat and pressure application method.

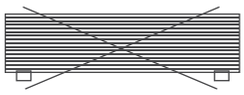
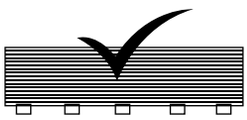
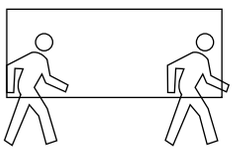
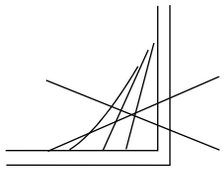
In Turkey, this felt is called Acoustic Fabric. Our company uses the first quality German made felt called SoundTex®. The thickness of this felt is 0.2mm, and the sound absorption quality is equal to the rockwool with thickness 4 cm.

SoundTex® is a membrane which has diverse properties. A specific amount of sound coming from indoors and passing through the hole is absorbed. After such specific amount of sound passed through the hole and came back, the felt prevents the sound from reentering to indoors. This product is antibacterial and antiallergic. Fireproof category is NORM DIN – B1 Class. We supply SoundTex® acoustic fabric to the market.

TECHNICAL INFORMATIONS

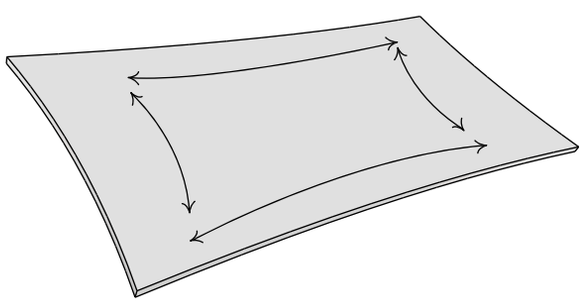
Shipping and Storage Informations

- Handle carefully all the materials received.
- If the packets are rolled, dragged and fallen, sides of the boards may be broken or damaged.
- Materials are dispatched in packaged pallet. After opening the package, the boards should be stockpiled so that the moisture exposure should be prevented.
- Our materials are appropriate for only being used in inner spaces and for storage therein. Packages are not water proof.
- Please do not place any other materials over the items received, do not step on it.
- Please do not place the materials under sunlight. Sun light may lead the materials to change their colors or to fade. Surface deteriorations may occur in polished models.
- During assembly or handling, please carry the boards vertically, horizontal handling may lead the boards separated from each other.
- Prior to begin assembly, it is recommended that the packages should be opened and and should be stockpiled vertically one on the top of another.

Manufacturing And Installation Informations

- Store your materials under 13°C (55°F) room temperature, as the lowest level. Lower room temperatures may cause your panels to shrink and to become shorter. Keep the room temperature as minimum 13°C (55°F) in winter and 35°C (95°F) celcius as maximum in summer.
- Humidity rate of the floor and walls should be 14-17%, as a maximum level. Please ensure that all plastered walls are dry prior to beginning to assembly process.
- Do not let assembly to be made at un-plastered locations where glass works and flooring stages have not been completed. Because of being exposed to construction dust and due to various careless works performed by different sectors at the same space, panels may be damaged from impacts.
- At the location where the assembly shall be made, prior to covering the walls, infrastructure installations should have been completed. Please be assured that fire, electric, sound, air conditioning, light installations have been completed.
- Products are manufactured by CNC controlled machines. The tolerance is ; +/ 0,30 mm
- MDF panels are affected from weather conditions because of their organic structures. Prior to beginning to assembly process, please open the panel packets so that the panels could adapt to room climate and keep them awaited for 3-4 days prior to assembly under the prevailing climate conditions in the space.
- Natural covered wood boards may experience change of color and texture. In order to obtain the best result, color tones and vein pattern directions of the boards should be paid attention prior to assembly. We always recommend you to order additional plate in the stock. In the manufacturing processes to be made thereafter, the difference of color and texture shall be more apparent.
- Wooden panels may rotate and change their dimension sizes according to the humidity rate. The panel's length increases under environments with higher humidity. Check the humidity rate before assembly. We hereby suggest you the climate humidity rate should be between 35-60%.



TECHNICAL INFORMATIONS

Use and Maintenance

- For removing dust, a soft brush may be attached to vacuum cleaner operating in lower power.
- Soft humid cloth should be used for cleaning. No detergent over 30°C (86°F) should be used for natural wood covered boards.
- Surfaces should not be cleaned with cleansers involving alcohol or ammoniac.
- Swells and deteriorations may appear in the materials in case of water contact. In such a case, boards are required to be renewed.
- Do not step on the boards, do not touch hard objects and scratch then stains.
- Wooden covered boards are affected from the sun light due to their organic structure. Their colors may be get darker in time.
- Damages occurred in the boards may be repaired by appropriate colored filling materials. If the board is damaged seriously, such boards should be replaced.Color difference shall occur in case of replacement. In such a case, board which are located in unimportant places and which are not seen may be replaced with the new ones.

MANUFACTURING CODES			
F	WIDTH OF GROOVE (mm)	**ÇP**	CROSSWISE PERFORATED
A	DISTANCE BETWEEN GROOVES (mm)	**DP**	DECORATIVE PANEL
PR	PERFORATION RATIO	**GBM**	WIDE BAND MODEL
DS	NUMBER OF HOLES (Piece/m2)	**KNL**	GROOVED
DK	DECORATIVE TILE	**DLK**	PERFORATED
TD	FULL HOLE	**SLT**	SLOTTED
KD	STEPWISED HOLE	**AK**	ACOUSTIC WOOD DOOR
TK	CEILING TILE	**ASY - KAP**	WOOD SOUND ISOLATION DOOR
YST	REFLECTIVE PANEL	**NRC**	NOISE REDUCTION COEFFICIENT
Euro	ACOUSTIC CLASS	**aw**	SOUND ABSORPTION COEFFICIENT
FP	FABRIC PANEL		

Certificates

Perfopan products have accreditation (appropriate for international criterions) DANAK and ENAC certificates in acoustic wood panel tests, each model is subjected to tests with mineral wool and without mineral wool. The reports of the tests with mineral wool and without mineral wool indicate the absorption specifications of the material and determine the acoustical needs. The system thet we recommend is to apply mineral wool at the back of the panels in acoustic wood panel application.

ilac-MRA DANAK ENAC EN ISO 354 EN 13501-1 EN ISO 1716 EN 13823 ISO9001

The values given in our reports are NRC-(Noise Reduction Coefficient), SAA (Sound Absorption Average) values in American standards and xw, absorption class values in European standards. In the graphics given in the technical details, X axis shows the resonance frequency and the unit is Hertz (Hz), and Y axis shows the value of sound absorption coefficient and the unit is called as Sabin (as). All our products are certificated. Manufactures are made according to ISO 9001 quality standards.

REFERENCES

1+TV TELEVISION STUDIO - ISTANBUL
Job Description: Acoustic Wall Panels

ACITY SHOPPING MALL,WEDDING HALL, ANKARA-TURKEY
Job Description : Acoustic Wall Panels

ACIBADEM UNIVERSITY – KEREM AYDINLAR CAMPUS - CONFERENCE HALL ISTANBUL-TURKEY
Job Description: Acoustic Wooden and Fabric Wall Panels, Acoustic Ceiling Panels

ATAKENT ACIBADEM HOSPITAL - SEMINAR ROOM
Job Description: Acoustic Wooden and Fabric Wall Panels

MASLAK ACADEMY of ACIBADEM HOSPITAL CONFERENCE HALL and FOYER ISTANBUL-TURKEY
Job Description: Acoustic Wooden and Fabric Wall Panels, and Acoustic Doors

TAKSIM ACIBADEM HOSPITAL, GARDENS ISTANBUL-TURKEY
Job Description: Acoustic Wall Panels, and Acoustic Fabric Ceilling Panels

ADIYAMAN HOSPITAL - CONFERENCE HALL ANKARA
Job Description: Acoustic Wall Panels

AKDENİZ UNIVERSITY, TOURISM FACULTY, CONFERENCE HALL - ANTALYA
Job Description: Acoustic Wall Panels

AKYURT MUNICIPALITY, COUNCIL HALL AKYURT-ANKARA
Job Description: Acoustic Wall Panels, Angular Acoustic Ceiling Coverings

ALFATEH UNIVERSIYT, CONFERENCE HALL AND CLASSES - POEM CONSTRUCTIONS LIBYA
Job Description: Acoustic Stage Panels, Acoustic Wall Panels, Acoustic Doors

MUNICIPALITY OF ANKARA, CONFERENCE HALL - ANKARA
Job Description: Acoustic Wall Panels

ANKARA UNIVERSITY, MEDICAL FACULTY MORPHOLOGY - CONFERENCE HALL
Job Description: Acoustic Wall Panels

ANKARA UNIVERSITY, MEDICAL FACULTY - 50 YEAR CONFERENCE HALL
Job Description: Acoustic Wall Panels

AKTAU INTERNATIONAL AIRPORT BUILDING ASTAV KAZAKHSTAN
Job Description: Acoustic Circular Ceiling Coverings

ATILIM UNIVERSITY, CONFERENCE HALL ANKARA
Job Description: Acoustic Wall Panels

BAND COMMAND 3 ARMY TRAINING HALLS ERZINCAN
Job Description: Acoustic Wall Coverings

BAND COMMANDER 3.ARMY EDUCATION HALLS - ERZURUM
Job Description : Acoustic Wall Panels

4. ARMY PEACE DINING HALL - ANKARA
Job Description : Acoustic Wall Panels

BOEING ANKARA OFFICE
Job Description : Acoustic Ceiling Panels

BYOTEL, CONFERENCE HALL - ISTANBUL
Job Description : Acoustic Ceiling Panels

CENGIZ TOPEL MARINE AIRPORT COMMANDER CONFERENCE HALL - KOCAELI
Job Description : Acoustic Wall Panels And Acoustic Ceiling Panels

CER MODERN ART CENTER, CONFERENCE HALL-ANKARA
Job Description : Acoustic Wall Panels

CHARLES DE GAULLE HIGH SCHOOL CONFERENCE HALL - ANKARA
Job Description : Acoustic Wall Panels

CLUP ASTERIA BELEK, RESTAURANT ANTALYA
Job Description : Acoustic Wall Panels And Acoustic Ceiling Panels

DIYARBAKIR SOCIAL INSURANCE AGENCY DIYARBAKIR
Job Description : Acoustic Wall Panels And Acoustic Ceiling Panels

DUSANBE TAX ADMINISTRATION BUILDING TACIKISTAN
Job Description : Acoustic Wall Panels And Flat Panels

EGE COLLEGE CONFERENCE HALL - IZMIR
Job Description : Acoustic Wall Panels

EPIK CONSTRUCTION MAIN MEETING HALL ANKARA
Job Description : Acoustic Wall Panels

ERA FIL REAL ESTATE OFFICE ISTANBUL
Job Description : Acoustic Ceiling Panels

ERIMTAN ARCHEOLOGY MUZESI, MULTI-PURPOSE HALL-ANKARA
Job Description : Acoustic Ceiling Panels

ESKISEHIR MUNICIPALITY CONFERENCE HALL ESKISEHIR
Job Description : Acoustic Wall Panels Acoustic Fabric Ceiling Panels

ESKISEHIR BAR ASSOCIATION CONFERENCE HALL - ESKISEHIR
Job Description : Acoustic Wall Panels And Acoustic Fabric Ceiling Panels

FEVZI OZBEY FIRST SCHOOL MUSIC CLASS ANKARA
Job Description : Acoustic Wall Panels

GARANTI BANKASI EDUCATION REGION DIRECTORATE CONFERENCE HALL-ISTANBUL
Job Description : Acoustic Wall Panels

SOUTH EAST REGIONAL DIRECTORATE CONFERENCE HALL OF GARANTI BANK - GAZIANTEP
Job Description : Acoustic Wall Panels and Acoustic Fabric Panels

GAZIANTEP PROVINCE CONFERENCE HALL GAZIANTEP
Job Description : Acoustic Wall Panels And Acoustic Fabric Panels

CONFERENCE HALL IN GIRESUN CITY SPECIAL ADMINISTRATIVE
Job Description : Acoustic Wall Panels

GRAND PERA EMEK CINEMA FOYER-TAKSIM ISTANBUL
Job Description : Acoustic Ceiling Panels

GRAND PERA EMEK CINEMA WC - TAKSIM ISTANBUL
Job Description : Acoustic Ceiling Panels

GUNGOREN MUNICIPALITY, CULTURAL CENTER CONFERENCE HALL - ISTANBUL
Job Description : Acoustic Wall Panels

GUVEN HOSPITAL MAIN CONFERENCE HALL
Job Description : Acoustic Wall Panels And Acoustic Ceiling Panels

GUVEN HOSPITAL ODYOLOGY ROOM
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HACETTEPE UNIVERSITY - FACULTY OF LAW CONFERENCE HALL - ANKARA
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ITU TURKISH MUSICIANS CONSERVATORY ISTANBUL
Job Description : Acoustic Wall Panels

ITU UHEM NATIONAL HIGH SUCCESS CALCULATION CENTER - ISTANBUL
Job Description : Curviniluar Acoustic Wall Panels And Acoustic Ceiling Panels

IF PERFORMANCE HALL - ANKARA
Job Description : Acoustic Wall Panels

KADIR HAS UNIVERSITY CONFERENCE HALL - KAYSERI
Job Description : Acoustic Wall Panels And Acoustic Ceiling Panels

KADIKOY MUNICIPALITY BRIEFING HALL ISTANBUL
Job Description : Acoustic Walls Panels And Acoustic Fabric Panels

KADIKOY MUNICIPALITY KOZYATAGI CULTURAL CENTER FACILITY - ISTANBUL
Job Description : Acoustic Wall Panels

KALE HOLDING HEADQUARTERS CONFERENCE HALL - ISTANBUL
Job Description : Acoustic Wall Panels And Acoustic Ceiling Panels

REFERENCES

KARNAVAL MEDIA GROUP RADIO BROADCASTING STUDIO - ISTANBUL
Job Description : Acoustic Wall Panels
KENT PARK AVM STORE - ANKARA
Job Description : Acoustic Ceiling Panels
FINE ART FACULTY OF KIRIKKALE UNIVERSITY, STUDIO OF MUSIC DEPARTMENT- KIRIKKALE
Job Description : Acoustic Wall Panels And Acoustic Ceiling Panels
KOSGEB CONFERENCE HALL - ANKARA
Job Description : Acoustic Wall Panels
LEZZET ISKENDER RESTAURANT - ANKARA
Job Description : Acoustic Ceiling Panels
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Job Description : Acoustic Ceiling Panels
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Job Description : Acoustic Ceiling Panels
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Job Description : Acoustic Wall Panels
LOSEV VILLAGE, RECEPTION HOLE - ANKARA
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Job Description :Dome Ceiling Panels
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TV NET TELEVISION STUDIO -ANKARA
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Job Description : Acoustic Wall Panels
TURKISH SOUND RADYOSU - ANKARA
Job Description : Acoustic Wall Panels And Acoustic Ceiling Panels, Acoustic Doors
GENERAL DIRECTORATE OF TURK TELEKOM MEETING HALL - ISTANBUL
Job Description : Acoustic Wall Panels And Acoustic Ceiling Panels
NATIONAL FOOD REFERENCE LABORATORY DIRECTORATE, CONFERENCE SALOON -ANKARA
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Job Description : Acoustic Wall Panels
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Job Description : Acoustic Wall Panels
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Türk Malı

03-2017

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Acoustic performance

Sound insulation

Aesthetic

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Natural wood

Recycle

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