# 11 integra

FELTLINE CEILING SYSTEMS







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INTEGRA-GROEP.COM



Our vision, which has consistently proved itself in the field of product quality and diversity with its R&D activities, comes to life with Integra products. Integra develops design solutions to realize the ceiling design that best suits the aesthetic requirements. For more than 25 years, Integra has been producing metal ceiling; it offers all the installation options and product variety required by the global building industry. Integra carries out its production and sales within its own structure together with the rapidly developing metal processing technologies.

Integra not only sells products; it is involved in all stages of the project, from design phase to after-sales services, and contributes to projects by providing appropriate design solutions when needed. Integra also provides innovative design support for the project in order to empower and support the imagination of designers.

#### Dreams come true with Integra's privilege;

Integra, ceiling your dreams...



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## Chapter



## Ceilings

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- Baffle
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### CEILINGS BAFFLE BEAM

#### INFORMATION

Baffle is vertically installed unframed units. It is available in different sizes and a wide range of colors. Two hanging methods: free hanging of each of the baffles or using a connector profile that maintains a uniform hanging. Customized sizes are available.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality, NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



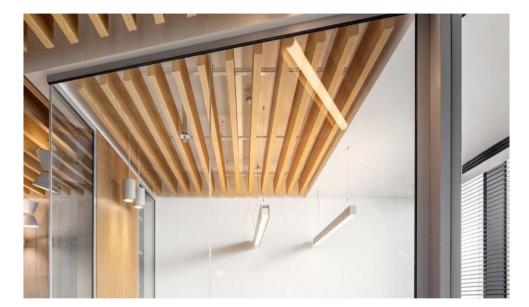
#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



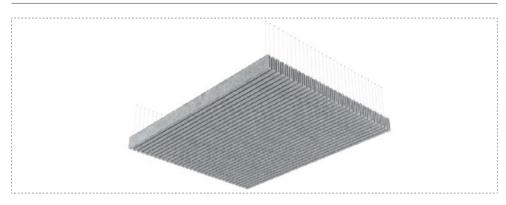
#### Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Max Lenght (mm)	Height (mm)	Thickness (mm)
	2780	100	9
D-#1- D		160	
Baffle Beam		260	
		560	



#### COLOR PALETTE

EP_21	EP_11	EP_06	EP_25	EP_24	EP_43	EP_07	EP_22	EP_14	EP_12	EP_29	EP_19	EP_01	EP_51
EP_05	EP_28	EP_03	EP_18	EP_04	EP_09	EP_93	EP_57	EP_92					

#### WOOD COLLECTION



6 Ceilings | Baffle Beam Baffle Beam | Ceilings 7



### CEILINGS BAFFLE GRADUAL

#### INFORMATION

Baffle is vertically installed unframed units. It is available in different sizes and a wide range of colors. Two hanging methods: free hanging of each of the baffles or using a connector profile that maintains a uniform hanging. Customized sizes are available.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



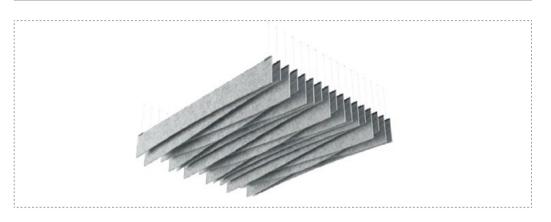
#### Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Max Lenght (mm)	Height (mm)	Thickness (mm)
	2780	150-250	12
Baffle Gradual		100-300	24
		200-400	



#### COLOR PALETTE

EP_21	EP_11	EP_06	EP_25	EP_24	EP_43	EP_07	EP_22	EP_14	EP_12	EP_29	EP_19	EP_01	EP_51
EP_05	EP_28	EP_03	EP_18	EP_04	EP_09	EP_93	EP_57	EP_92					

#### WOOD COLLECTION







Beige Streiff Oak Gray Streiff Oak

8 Ceilings | Baffle Gradual Baffle Gradual | Ceilings 9



## CEILINGS

#### INFORMATION

A floating open cells island - is a colorful element in the space, hanging from the ceiling, adding design and acoustics to the space. Aselection of shades from an existing fan of colors. Can be painted in any desired shade.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester
PET, of which about
70% is recycled from
drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84



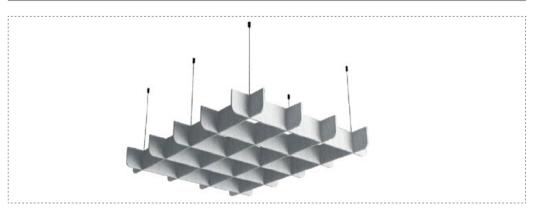
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Cell Size (mm)	Height (mm)	Thickness (mm)
	200x200	100	12
6 1611	300x300	150	24
Symi Grid	400x400	200	
	600x600	300	



#### **COLOR PALETTE**

EP_21	EP_11	EP_06	EP_25	EP_24	EP_43	EP_07	EP_22	EP_14	EP_12	EP_29	EP_19	EP_01	EP_51
EP_05	EP_28	EP_03	EP_18	EP_04	EP_09	EP_93	EP_57	EP_92					

#### WOOD COLLECTION



Beige Streiff Gray Streiff Oak Oak

Symi Grid | Ceilings 11 10 Ceilings | Symi Grid



## CEILINGS KEA GRID

#### INFORMATION

A floating framed island - in the design of cells is a unique ceiling element in the space, Combining design and acoustics for perfect visibility. Aselection of shades from an existing fan ofcolors. Can be painted in any desired shade.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality. NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

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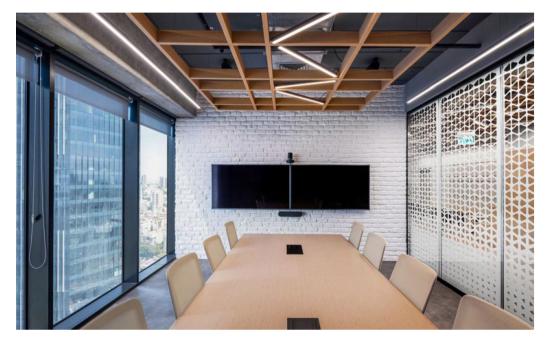
#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



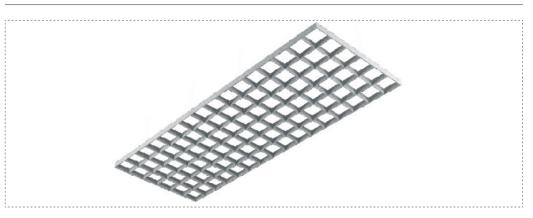
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Cell Size (mm)	Height (mm)	Thickness (mm)
	200x200	100	12
Kan Cita	300x300	150	24
Kea Grid	400x400	200	
	600x600	300	



#### COLOR PALETTE

EP_21	EP_11	EP_06	EP_25	EP_24	EP_43	EP_07	EP_22	EP_14	EP_12	EP_29	EP_19	EP_01	EP_51
EP_05	EP_28	EP_03	EP_18	EP_04	EP_09	EP_93	EP_57	EP_92					

#### WOOD COLLECTION



12 Ceilings | Kea Grid | Ceilings | 13



## CEILINGS HYDRA GRID

#### INFORMATION

Demountable grid ceiling comes in varying sizes and dimensions. Exists in two hanging methods - hanging as a free unit and hanging on a peripheral profile. Customized sizes are available.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality. NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



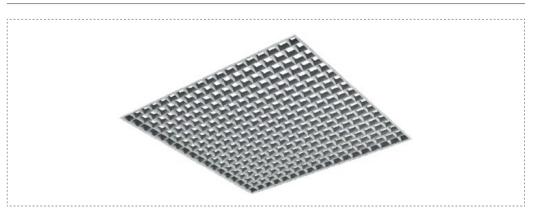
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Main Cell Size (mm)	Tile Cell Size (mm)	Height (mm)	Thickness (mm)
	600x600	150x150	100	12
Unider Celd		200x200	150	24
Hydra Grid		300x300	200	
			300	



#### COLOR PALETTE



#### WOOD COLLECTION



Beige Streiff Oak

f Gray Streiff Oak

14 Ceilings | Hydra Grid | Ceilings | 15



### CEILINGS **FELTLINE CORRIDOR**

#### INFORMATION

Continuous elongated tiles that produce a continuous linear appearance to the space. Designed for narrow spaces such as corridors, can be unmounted very easily. The units connect to each other in a minimal disconnect slot.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester
PET, of which about
70% is recycled from
drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



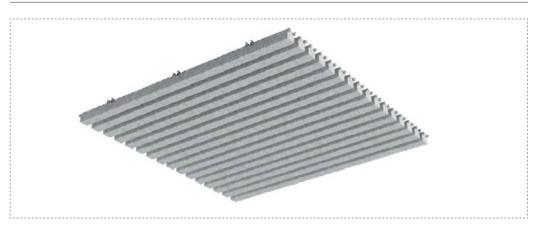
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Length (mm)	Thickness (mm)
	1200x600	6
Feltline Corridor	2400x600	9
		24



#### **COLOR PALETTE**

EP_21	EP_11	EP_06	EP_25	EP_24	EP_43	EP_07	EP_22	EP_14	EP_12	EP_29	EP_19	EP_01	EP_51
EP_05	EP_28	EP_03	EP_18	EP_04	EP_09	EP_93	EP_57	EP_92					

#### WOOD COLLECTION







Beige Streiff Oak Gray Streiff Oak

16 Ceilings | Feltline Corridor Feltline Corridor | Ceilings 17



## **CEILINGS**

#### INFORMATION

A combination of frames and tiles that create a three-dimensional ceiling surface and excellent acoustics.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality; NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material,



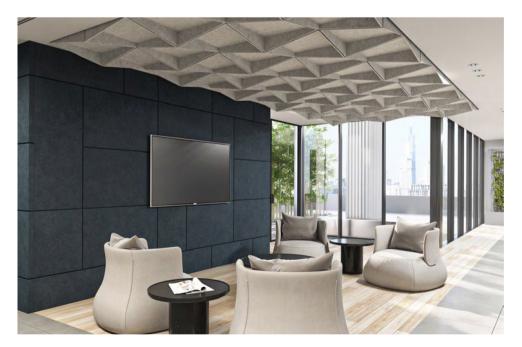
#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



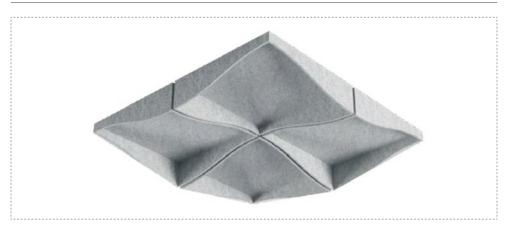
#### Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Length (mm)	Height (mm)	Thickness (mm)
Diagonal	600x600	50-100	12



#### \_\_\_\_COLOR PALETTE

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EP_21	EP_11	EP_06	EP_25	EP_24	EP_43	EP_07	EP_22	EP_14	EP_12	EP_29	EP_19	EP_01	EP_51
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		Salah Ara											
EP_05	EP_28	EP_03	EP_18	EP_04	EP_09	EP_93	EP_57	EP_92					

#### WOOD COLLECTION



18 Ceilings | Diagonal Diagonal | Ceilings 19



### CEILINGS

BARCODE

#### INFORMATION

Continuous elogated tiles that produce a continuous linear appearance to the space. The units connect to each other in a minimal disconnect slot.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-AO2.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



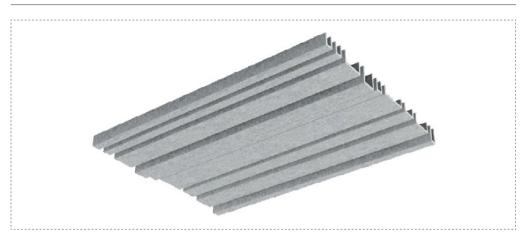
#### Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Length (mm)	Thickness (mm)
Barcode	1200x600	6
balcode	2400x600	9



#### COLOR PALETTE

EP_21	EP_11	EP_06	EP_25	EP_24	EP_43	EP_07	EP_22	EP_14	EP_12	EP_29	EP_19	EP_01	EP_51	
EP_05	EP_28	EP_03	EP_18	EP_04	EP_09	EP_93	EP_57	EP_92						

#### WOOD COLLECTION

Beige Streiff

Gray Streiff Oak



20 Ceilings | Barcode Barcode | Ceilings 21



### CEILINGS MODULAR CUBES

#### INFORMATION

A cluster of varying sizes and heights of cube tiles produces an impressive three-dimensional ceiling with high-quality acoustic values.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality. NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



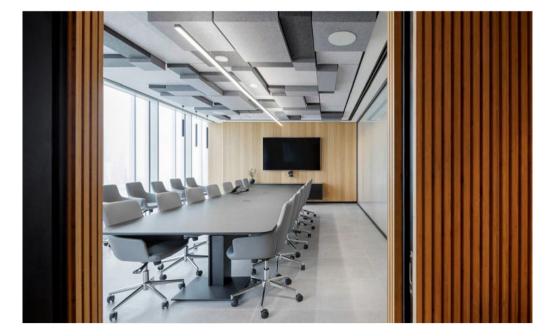
#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



#### Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Module Size (mm)	Height (mm)	Thickness (mm)
Modular Cubes	2400x2400	50-200	9



#### COLOR PALETTE

			-201					100		700	19		
EP_21	EP_11	EP_06	EP_25	EP_24	EP_43	EP_07	EP_22	EP_14	EP_12	EP_29	EP_19	EP_01	EP_51
EP_05	EP_28	EP_03	EP_18	EP_04	EP_09	EP_93	EP_57	EP_92					

#### WOOD COLLECTION



22 Ceilings | Modular Cubes | Modular Cubes | Ceilings | 23



## CEILINGS GROOVED

INFORMATION

The grooved tiles are series in a geometrical shape, forming a unit in a continuance pattern. The pattern is repetitive - the tiles connect on all edges.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



Recycled

The hoards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material. suitable for every environment.



Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84



Cleaning

Can be simply done using a damp cloth and vacuum cleaner.

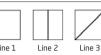


#### SPECIFICATION

PRODUCT	Size (	mm) Thickness (mm)
Grooved	600×	600 9
diooved		12



#### MODELS



Rec 2

Geo 2









Rec 6

Slot 2

(12 mm)



















**COLOR PALETTE** 

Square Edge

Glued



Arc 3

Rec 1

Geo 1



Rec 3

Geo 3



Rec 4

Slot 1





Slot 2

Rec 5



Arc 7



EP\_29



EP\_19





#### WOOD COLLECTION











Cherry Blossom









White Blossom

Oak







Smoked Ash



Smoked Oak

Wooden Wool

Streiff Cherry



White Stripe





Recovered Streiff Birch Blossom Maple





Gray Streiff Oak

Beige Streiff Oak

Grooved | Ceilings 25



## **CEILINGS** BAFFLE WAVE

#### INFORMATION

Baffle is vertically installed unframed units. It is available in different sizes and a wide range of colors. Two hanging methods: free hanging of each of the baffles or using a connector profile that maintains a uniform hanging. Customized sizes are available.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84



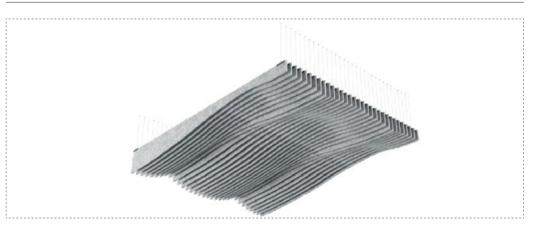
#### Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Max Lenght (mm)	Height (mm)	Thickness (mm)
	2780	200	12
Baffle Wave		300	24
		400	



#### **COLOR PALETTE**

EP_21	EP_11	EP_06	EP_25	EP_24	EP_43	EP_07	EP_22	EP_14	EP_12	EP_29	EP_19	EP_01	EP_51
EP_05	EP_28	EP_03	EP_18	EP_04	EP_09	EP_93	EP_57	EP_92					

#### WOOD COLLECTION







Gray Streiff Oak Beige Streiff Oak

26 Ceilings | Baffle Wave Baffle Wave | Ceilings 27



## CEILINGS

#### INFORMATION

The Galaxy is a striking round element composed of vertical tiles, featuring a unique striped look, and offering different heights or thicknesses for the baffles. It can be installed as a floating element or securely screwed close to an existing ceiling, providing versatile design possibilities.

#### PROPERTIES



#### Acoustic Absorption

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#### Color Fading

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#### Recycled

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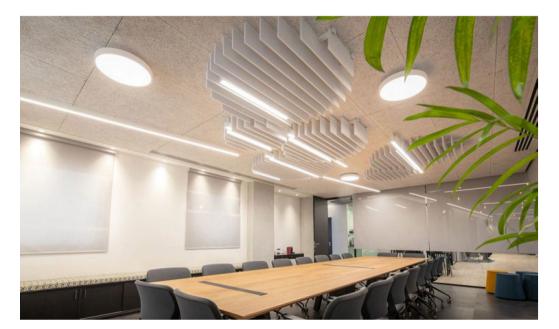
#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



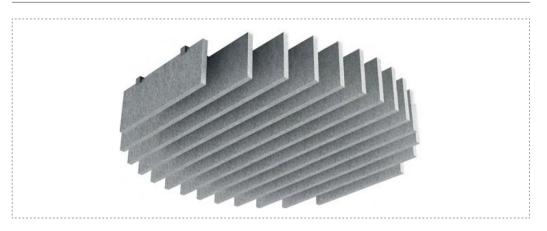
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Max Lenght (mm)	Height (mm)	Thickness (mm)
	2780	200	12
Galaxy		300	24
		400	



#### COLOR PALETTE

EP_21	EP_11	EP_06	EP_25	EP_24	EP_43	EP_07	EP_22	EP_14	EP_12	EP_29	EP_19	EP_01	EP_51
EP_05	EP_28	EP_03	EP_18	EP_04	EP_09	EP_93	EP_57	EP_92					

#### WOOD COLLECTION







Beige Streiff Gray Streiff Oak Oak

28 Ceilings | Galaxy | Ceilings | Galaxy | Ceilings | 29



## **CEILINGS** BAFFLE

#### INFORMATION

Baffle is vertically installed unframed units. It is available in different sizes and a wide range of colors. Two hanging methods: free hanging of each of the baffles or using a connector profile that maintains a uniform hanging. Customized sizes are available.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment



#### Color Fading

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#### Recycled

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#### Sustainability

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#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



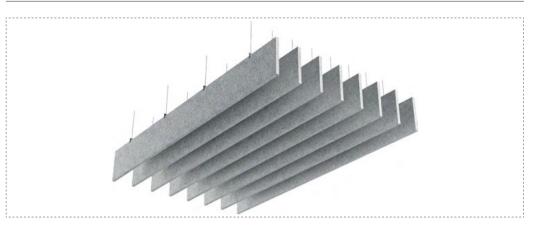
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Max Lenght (mm)	Height (mm)	Thickness (mm)
	2780	200	12
Baffle		300	24
		400	



#### **COLOR PALETTE**

EP_21	EP_11	EP_06	EP_25	EP_24	EP_43	EP_07	EP_22	EP_14	EP_12	EP_29	EP_19	EP_01	EP_51
EP_05	EP_28	EP_03	EP_18	EP_04	EP_09	EP_93	EP_57	EP_92					

#### WOOD COLLECTION







Beige Streiff Oak Gray Streiff Oak

Baffle | Ceilings 31 30 Ceilings | Baffle



## CEILINGS

#### INFORMATION

Continuous elongated tiles that produce a continuous linear appearance to the space. The units connect to each other in a minimal disconnect slot.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality. NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



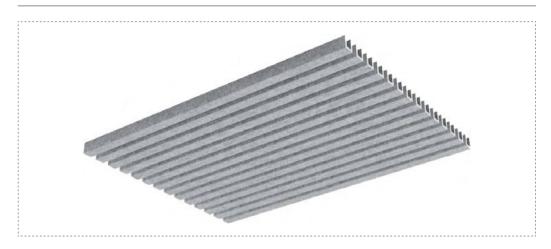
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Length (mm)	Thickness (mm)
Feltline	1200x600	6
retuine	2400x600	9



#### COLOR PALETTE

EP_21	EP_11	EP_06	EP_25	EP_24	EP_43	EP_07	EP_22	EP_14	EP_12	EP_29	EP_19	EP_01	EP_51
EP_05	EP_28	EP_03	EP_18	EP_04	EP_09	EP_93	EP_57	EP_92					

#### WOOD COLLECTION



32 Ceilings | Feltline | Feltline | Ceilings 33



## Chapter



## Grooved

- Slot
- Rec
- Geo
- Line



### GROOVED SLOT

#### INFORMATION

A selection of shades from an existing color palette. Can be painted in any desirable shade.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality. NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



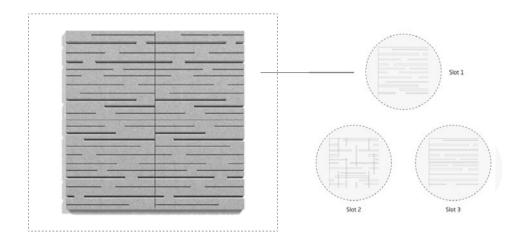
#### Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Tile Size (mm)	Thickness (mm)
	600x600	9
Slot		12
		24



#### COLOR PALETTE



#### WOOD COLLECTION



36 Grooved | Slot Slot | Slot | Grooved 37



## GROOVED

#### INFORMATION

A selection of shades from an existing color palette. Can be painted in any desirable shade.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material. suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84



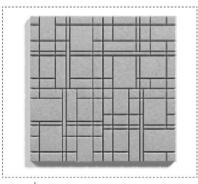
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Tile Size (mm)	Thickness (mm)
	600x600	9
Rec		12
		24









Rec 1









EP 29

EP 19

EP 01

#### COLOR PALETTE



#### WOOD COLLECTION





## GROOVED GEO

#### INFORMATION

A selection of shades from an existing color palette. Can be painted in any desirable shade.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a super/o acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



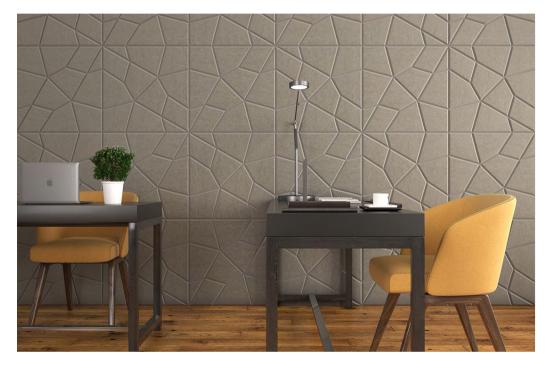
#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



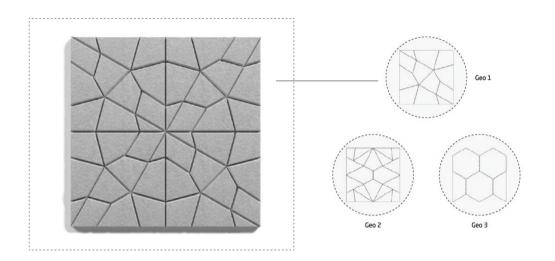
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Tile Size (mm)	Thickness (mm)
	600x600	9
Geo		12
		24



#### COLOR PALETTE



#### WOOD COLLECTION





### GROOVED LINE

#### INFORMATION

A selection of combining patterns that enable a large number of combinations. A selection of shades from an existing color palette. Can be painted in any desirable shade.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



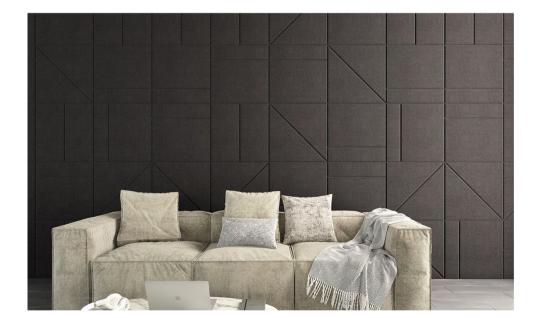
#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



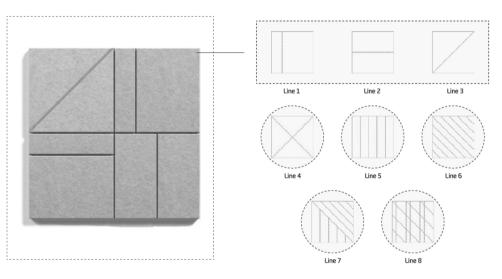
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Tile Size (mm)	Thickness (mm)
	600x600	9
Line		12
		24



## COLOR PALETTE EP\_21 EP\_11 EP\_06 EP\_25 EP\_24 EP\_43 EP\_07 EP\_22 EP\_14 EP\_12 EP\_29 EP\_19 EP\_01 EP\_51 EP\_05 EP\_28 EP\_03 EP\_18 EP\_04 EP\_09 EP\_93 EP\_57 EP\_92 EP\_92 EP\_19 EP\_19 EP\_11 EP\_11 EP\_11 EP\_11 EP\_11 EP\_11 EP\_11 EP\_12 EP\_12

#### WOOD COLLECTION



42 Grooved | Line | Grooved 43



## Chapter



## Shaped

- Cube
- Hex
- Bricks
- Train





INFORMATION

Square shapes tile.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does recyclable and durable material. suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84



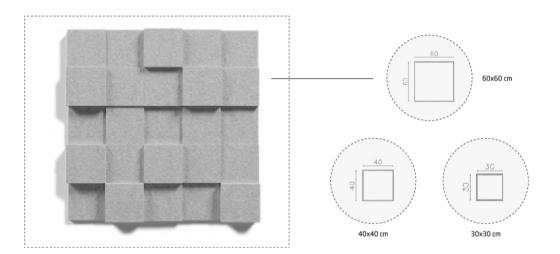
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Tile Size (mm)	Thickness (mm)
	300x300	9
Cube	400x400	12
	600x600	24



#### COLOR PALETTE



#### WOOD COLLECTION







#### INFORMATION

Hexagonal shaped geometric tile. Beveled edge along the tile's entire circumference. The tiles cling to each other in order to create assembly compositions.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



#### Cleaning

Can be simply done using a damp cloth and vacuum cleaner.

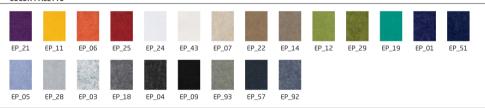


#### SPECIFICATION

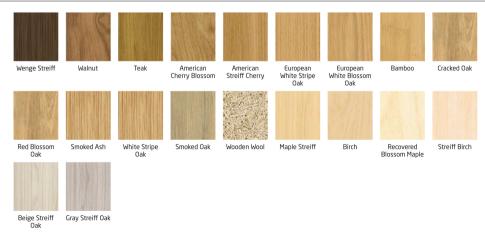
PRODUCT	Tile Size (mm)	Thickness (mm)
	470/400	9
Hex	600/520	12
		24



#### COLOR PALETTE



#### WOOD COLLECTION





## SHAPED BRICKS

#### INFORMATION

A rectangle shaped tile. Beveled edge along the tile's two long sides. Several assemblies compositions can be created.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



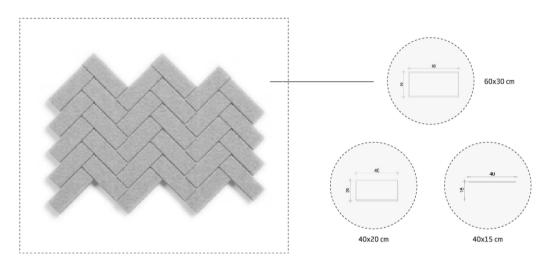
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.

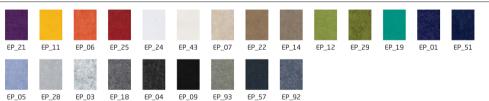


#### SPECIFICATION

PRODUCT	Tile Size (mm)	Thickness (mm)
	400/150	9
Bricks	400/200	12
	600/300	24



#### COLOR PALETTE



#### WOOD COLLECTION





### SHAPED TRAIN

#### INFORMATION

A triangle shaped tile - Equilateral triangle. Beveled edge along the tile's entire circumference.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-AO2.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



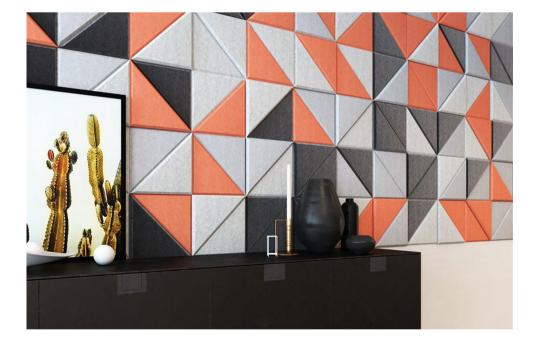
#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



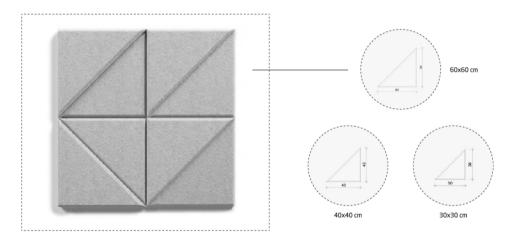
#### Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Tile Size (mm)	Thickness (mm)
	300/300	9
Train	400/400	12
	600/600	24



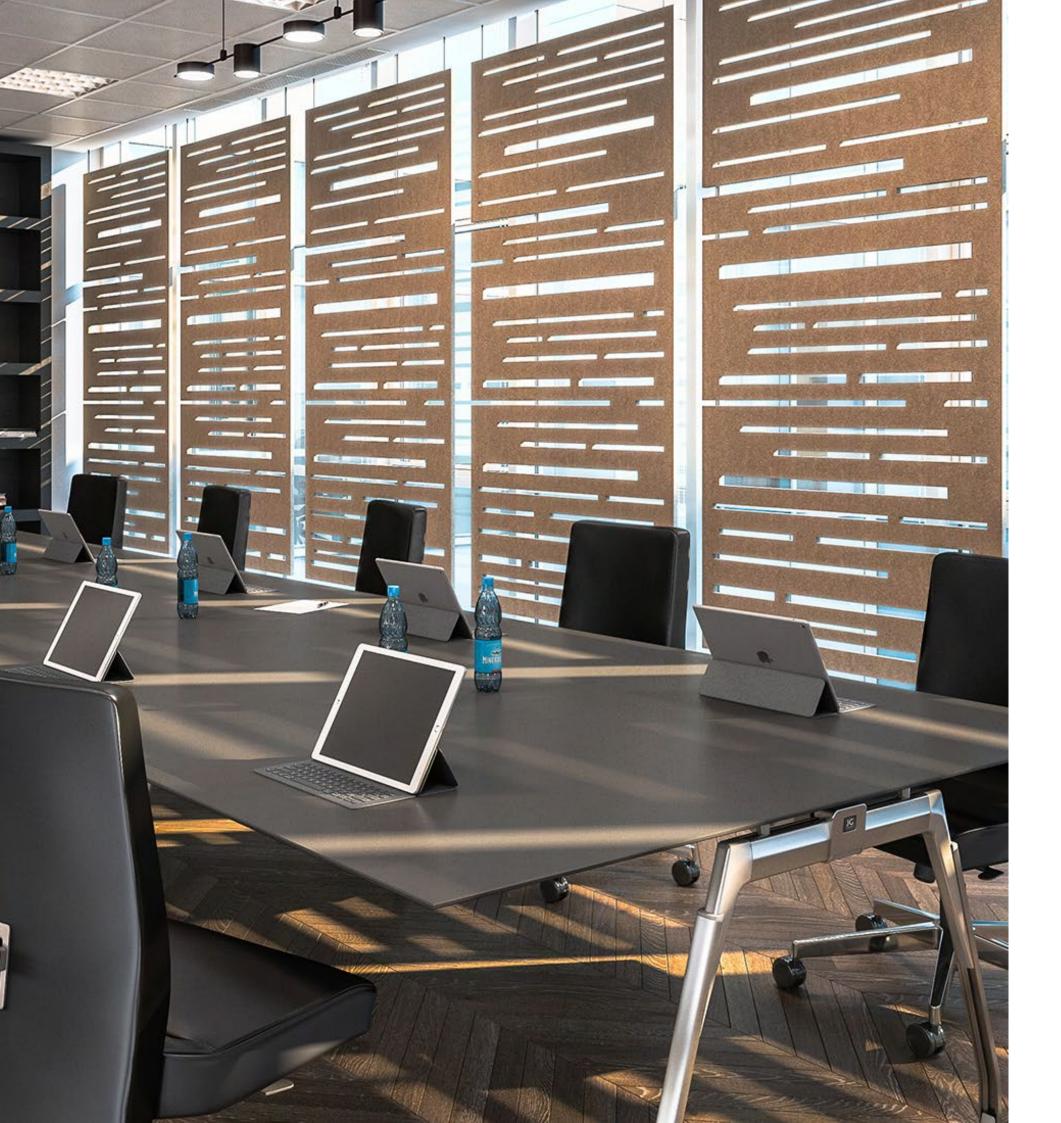
#### COLOR PALETTE



#### WOOD COLLECTION



52 Shaped | Train | Shaped | 53



## Chapter

94



## Acoustic Partitions

- Urban
- Slot
- Hives
- Drops
- Books



### **PARTITIONS**

URBAN

#### INFORMATION

The hanging tiles series, grooved according to a pattern, that act as spaces dividers. They can be permanently hung or mobile on a rails.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality; NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-AO2.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

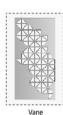
PRODUCT	Width (mm)	Height (mm)	Thickness (mm)
Urban	1200	2400	12
Olbaii		2800	24



Urban







5

Plus



Slot 2

#### COLOR PALETTE



#### WOOD COLLECTION





## PARTITIONS

#### SPECIFICATION

PRODUCT	Width (mm)	Height (mm)	Thickness (mm)
Slots	1200	2400	12
		2800	24

#### INFORMATION

The hanging tiles series, grooved according to a pattern, that act as spaces dividers. They can be permanently hung or mobile on a rails.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality; NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



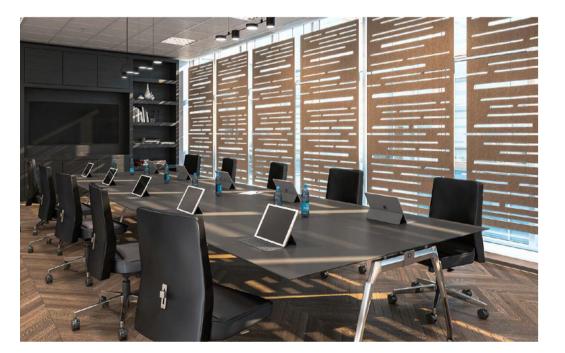
Fire Reaction

Our products are manufactured according to the European fireproofing standard ENI3501-1 and American ASTM84 Class A.



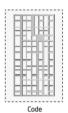
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.

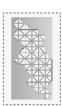




Slot 1







Vane



Plus





COLOR PALETTE



#### WOOD COLLECTION



58 Partitions | Slots | Slots | Slots | Partitions | 59



### PARTITIONS

HIVE

#### INFORMATION

The hanging tiles series, grooved according to a pattern, that act as spaces dividers. They can be permanently hung or mobile on a rails.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality. NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



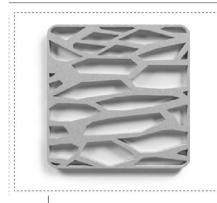
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Width (mm)	Height (mm)	Thickness (mm)
Hive	1200	2400	12
		2800	24



Hive C







Hive A

Hive D

Rocks 1





Hive B

Roads

#### COLOR PALETTE



#### WOOD COLLECTION





### **PARTITIONS DROPS**

#### INFORMATION

The hanging tiles series, grooved according to a pattern, that act as spaces dividers. They can be permanently hung or mobile on a rails.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The hoards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin. nor does it emit any (VOC) off gasses. It is recyclable and durable material. suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84



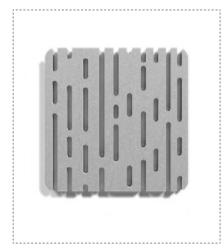
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Width (mm)	Height (mm)	Thickness (mm)
Drops	1200	2400	12
		2800	24









Rain





Dots Random 1

Roads

#### COLOR PALETTE



#### WOOD COLLECTION





## PARTITIONS BOOKS

#### INFORMATION

The hanging tiles series, grooved according to a pattern, that act as spaces dividers. They can be permanently hung or mobile on a rails.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



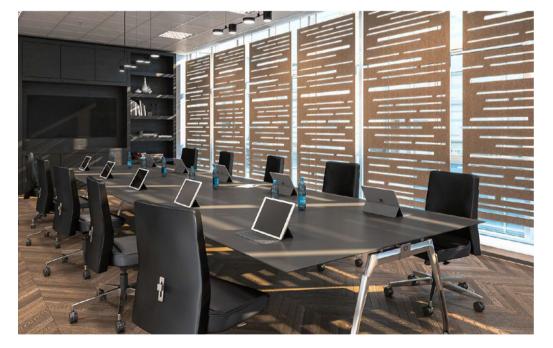
#### Fire Reaction

Our products are manufactured according to the European fireproofing standard ENI3501-1 and American ASTM84



Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

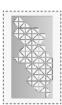
PRODUCT	Width (mm)	Height (mm)	Thickness (mm)
Books	1200	2400	12
		2800	24



Books







an

Vane

Plus





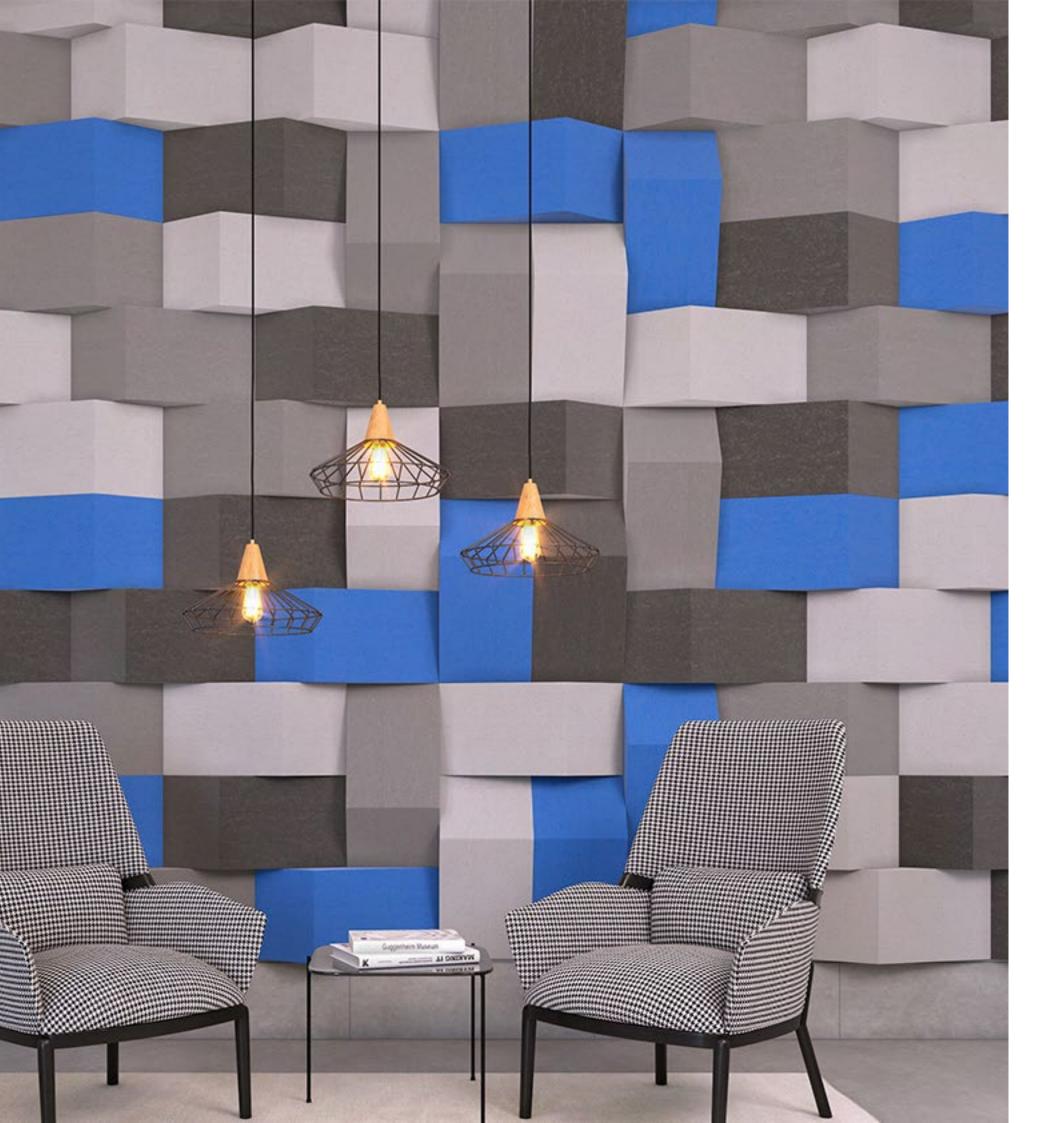
COLOR PALETTE



#### WOOD COLLECTION



64 Partitions | Books | Partitions | 65



## Chapter

# 05



## Pyramid Tiles

- Vi
- Train
- Square



## PYRAMID TILES vi

#### INFORMATION

A rectangular 3D tile, bent in an asymmetric cut. The tiles interlock with each other enabling the creation of diverse 3D assemblies for wall covering.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality. NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



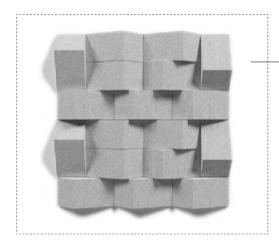
#### Cleaning

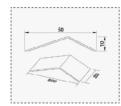
Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Length (mm)	Thickness (mm)
Vi	500x250x100	9
	600x300x100	





50x25x10 cm



60x30x10 cm

#### COLOR PALETTE



#### WOOD COLLECTION



68 Vi | Pyramid Tiles Vi | Pyramid Tiles 69



# PYRAMID TILES TRAIN

SPECIFICATION

PRODUCT	Length (mm)	Thickness (mm)
Train	300x300x100	9
	400x400x150	

#### INFORMATION

3D tile. A triangle pyramid, with an equilateral base. The tiles cling to each other - and together they create a three dimensional assembly for wall covering.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality. NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-AO2.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



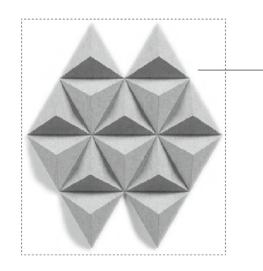
#### Fire Reaction

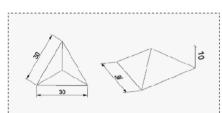
Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



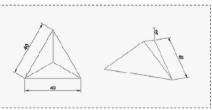
Cleaning

Can be simply done using a damp cloth and vacuum cleaner.





30x30x10 cm



40x40x15 cm

EP 29

EP 19

EP 01

#### COLOR PALETTE



#### WOOD COLLECTION





70 Train | Pyramid Tiles Train | Pyramid Tiles 71



#### **PYRAMID TILES**

SOUARE

#### INFORMATION

3D tile. A square pyramid, with an asymmetric apex. Equilateral base. The tiles cling to each other - and together they create a three dimensional assembly for wall covering.

#### PROPERTIES



#### Acoustic Absorption

Our products poses a superb acoustic quality: NRC=0.4-0.95 in a variety of implementation applications that enable the creation of an ideal living environment, pleasant and of high quality, well suited for office spaces, halls, education structures and entertainment places.



#### Color Fading

Assessment of colour fastness according to EN 1587 Assessed against the grey scale ISO 105-A02.



#### Recycled

The boards are made of 100% polyester PET, of which about 70% is recycled from drinking bottles.



#### Sustainability

Our PET Felt products contains post-consumer PET, does not contain any lead or tin, nor does it emit any (VOC) off gasses. It is recyclable and durable material, suitable for every environment.



#### Fire Reaction

Our products are manufactured according to the European fireproofing standard EN13501-1 and American ASTM84 Class A.



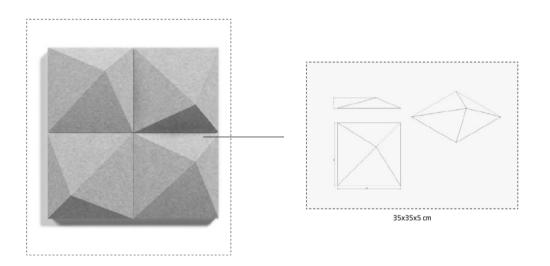
#### Cleaning

Can be simply done using a damp cloth and vacuum cleaner.



#### SPECIFICATION

PRODUCT	Length (mm)	Thickness (mm)
Square	350x350x50	9
Square	560x560x110	



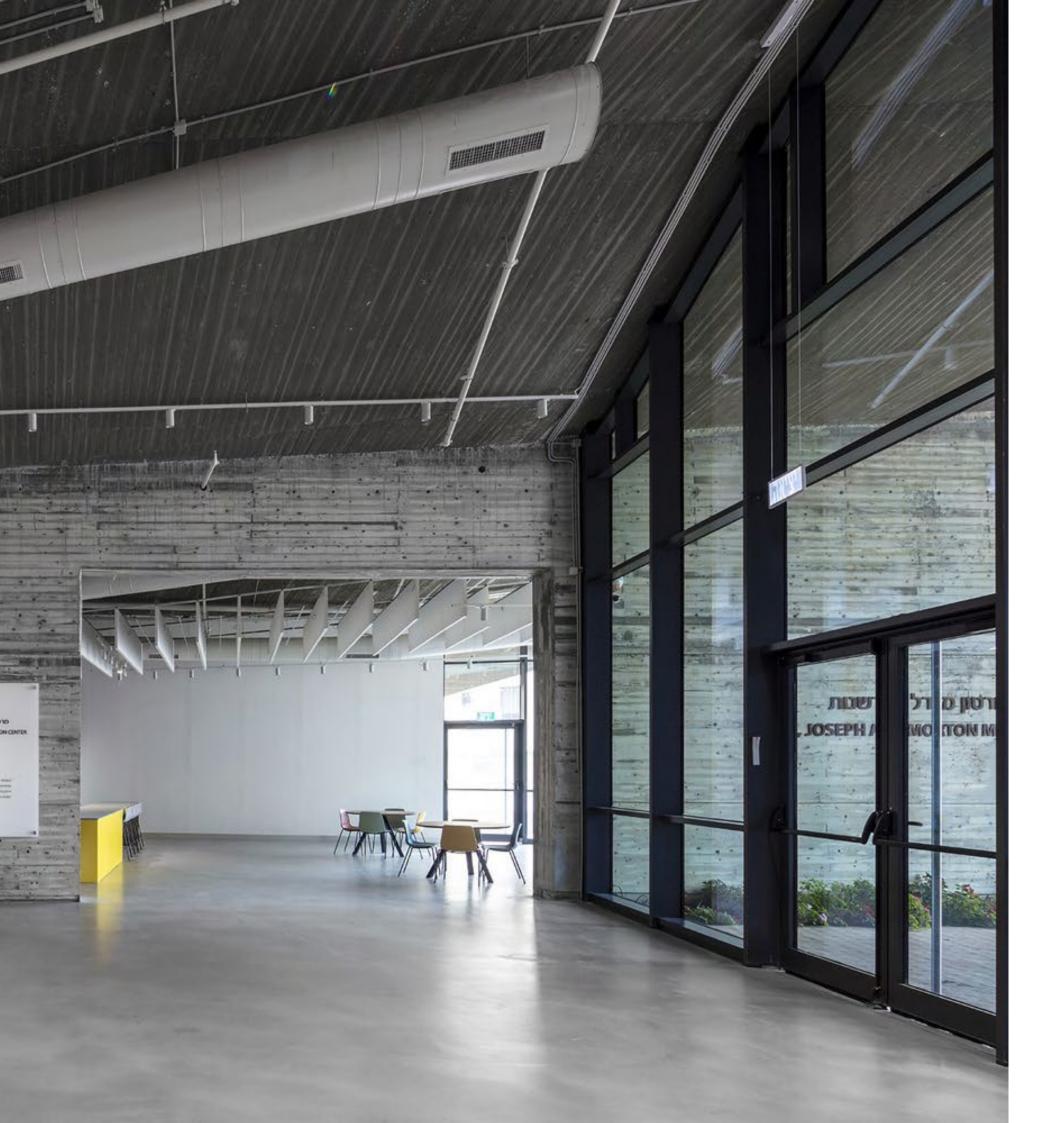
#### COLOR PALETTE



#### WOOD COLLECTION



72 Square | Pyramid Tiles Square | Pyramid Tiles 73



## Chapter



# Technical Information

- Color and Pattern
- Acoustics
- Fire





#### STANDART INTEGRA COLORS

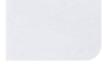
**integra**®



Black EP\_09



Dark Blue EP\_51



White EP\_24



Red EP\_25



Ash EP\_04

EP\_05

Vanilla

Purple

EP\_21

EP\_43



Light Blue Light Grey EP\_28



Beige EP\_07

Dark Grey

EP\_18



Mocha EP\_14

Silver

EP\_03

Lime



Navy

EP\_01

Yellow

EP\_11

Lake



Jungle





Orange EP\_22 EP\_06





Wenge Streiff

European White

Blossom Oak

Smoked Oak



Walnut

Bamboo



Teak



American



Red Blossom

Oak

Birch

Cracked Oak

Maple Streiff





Smoked Ash



European White Stripe Oak



White Stripe 0ak



American Streiff

Blossom Maple



Recovered



Streiff Birch



Beige Streiff Oak

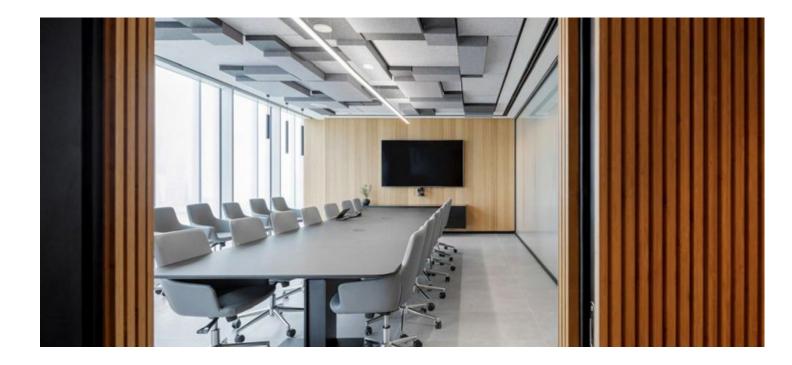


Grey Streiff Oak



Wooden Wool

Wood color and pattern options are only for representation. All the available color and texture options can be different from what is shown in the catalogue. Integra has the right to make any amendments to the specifications of the products prior to informing. Please contact the sales department for all the available color and pattern options.



76 Color Palette | Technical Information

**integra**<sup>®</sup>



#### Building acoustics can be reviewed under 3 main titles:

#### 1) Indoor Acoustics

Associated with providing acoustic properties in enclosed spaces. While the most important evaluation criterion is reverberation time, "sound absorption" in the space is the key to achieving the acoustic values desired.

#### 2) Sound Insulation

Associated with the feature of building and building conditions to prevent sound passing between two rooms. It can be divided into 2 types; providing sound insulation by air way and impact sound insulation in adjacent areas.

#### 3) Noise

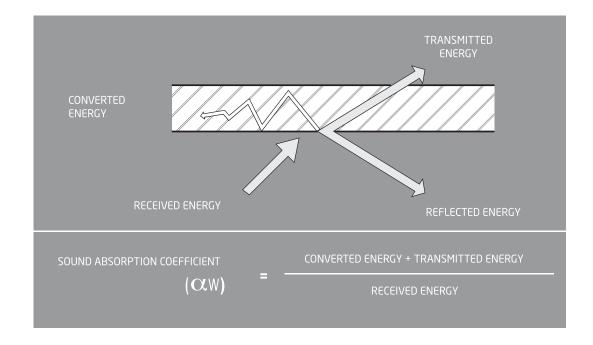
Associated with sounds in the outside environment such as vehicle noise, air conditioner, lighting equipment and background sounds or the human voice coming from the adjoining room.

#### **SOUND ABSORPTION**

When a sound wave hits any surface, part of its energy is reflected

back into the room while the other part of it affects the surface. Part of the sound wave energy is converted into thermal energy and is absorbed while the remaining part is transmitted. The level of the energy converted into thermal energy is dependent on the sound absorption capacity of the panel.

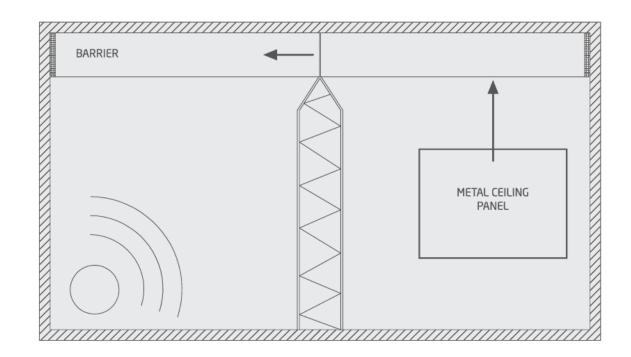
Integra metal ceiling panels, having been subjected to tests in international institutes and laboratories in accordance with DIN EN 20354 and DIN EN ISO 116554 norms, meet the Noise Reduction Coefficient values (NRC) required in the space. Sound absorption values are related directly to the material used and perforations applied on the panel. Perforated Metal Ceilings improve room acoustics and reduce the echo time.



#### **SOUND INSULATION**

Sound insulation is applied in order; to protect against the Hazardous and undesired effects of noise by insulating the living environment, to reduce the sounds emitted from noisy areas into the surrounding and to create suitable conditions of use in spaces such as movie theatres and recording studios.

Sound reduction values are generally subjected to testing according to EN ISO 140 and EN ISO 717-1 norms in the 1/3 octave band. The sound reduction value for acoustic applications in buildings is tested at frequencies ranging from 100 to 3150 Hz as per ISO and from 125 to 4000 Hz as per ASTM. The sound insulation value for ceilings according to the EN ISO 717-1 norms is defined as Dn,c,w (dB). Integra metal ceiling panels sound insulation values can decrease sound transmissions arising from sound sources such as ventilation in the ceiling void, lighting systems and noise transmitted from room to room. (20-40 dB)



**integra**®



#### **Tested Construction**

The data presented here were taken from the information supplied by the principal. The density of the materials as reported is derived from the actual weighing by the laboratory staff of the materials under test.

The following wall panels have been tested.

Type: Echoshape Manufacturer: Beterplast

Material: PET

Panel sizes: 1200 mm x 400 mm

Thickness: 9 mm

Mass: 1,84 kg /m2 (weighted)



Type: Echoshape Manufacturer: Beterplast Material: PET

Panel sizes: 1200 mm x 400 mm

Thickness: 12 mm

Mass: 2,33 kg/m2 (weighted)

Type: Echoshape Manufacturer: Beterplast Material: PET

Panel sizes: 1200 mm x 600 mm

Thickness: 24 mm

Mass: 3,23 kg/m2 (weighted)



The results as presented here relate only to the tested items and laboratory conditions as described in this report. The laboratory can make no judgement about the representativity of the tested samples. The test report ahead is valid as long as the tested constructions and/or materials are unchanged.

#### Measurements

The wall panels are measured in the following measurement setups:

- 1. Airgap 0 mm: The panels have been put directly on the floor of the reverberation room;
- 2. Airgap 50 mm: The wall panels are mounted on a support structure at a distance of 50 mm above the floor of the reverberation
- 3. Airgap 200 mm: The wall panels are mounted on a support structure at a distance of 200 mm above the floor of the reverberation room.

No suspension-system has been used, the panels were put tight to each other. The sides of the set-up were enclosed by 18 mm thick plastic covered chip wood board and sealed by tape. The measurement setups are according to type A and E mounting method as described in Annex B of ISO 354:2003 (Test specimen mountings for sound absorption tests).

#### Airgap of 0 mm

	sound absorption coefficient $a_{_{\mathrm{S}}}$					
Variant nr.	1 2		3			
Record nr.	#1	61	#1	24	#73	
Material thickness	9 r	nm	12	mm	24 mm	
See figure	-	3	4	1	5	
Frequency [Hz]	1/3 oct	1/1 oct	1/3 oct	1/1 oct	1/3 oct	1/1 oct
100	0,01		0,02		0,03	
125	0,00	0,01	0,01	0,02	0,03	0,05
160	0,03		0,03		0,09	
200	0,03		0,05		0,13	
250	0.04	0.05	0.05	0.07	0,19	0.21
315	0,07	.,	0,11	.,	0,31	.,
					.,	
400	0,09		0,15		0,41	
500	0,13	0,13	0,20	0,21	0,49	0,51
630	0,18		0,29		0,63	
800	0,26		0,43		0,71	
1000	0,35	0,35	0,54	0,54	0,81	0,80
1250	0,45		0,65		0,88	
1600	0,55		0,76		0.05	
2000	0,55	0,65	0,76	0,83	0,95 0,98	0,97
2500	0,65	0,05	0,90	0,63	0,98	0,97
2300	0,74		0,90		0,98	
3150	0,80		0,94		0,97	
4000	0,89	0,88	0,98	0,98	0,97	0,98
5000	0,95		1,02		1,00	
a	0,25	(H)	0,25	(H)	0,50 (H)	
**						
SAA	U,	30	0,41		0,62	

### Airgap of 50 mm

	sound absorption coefficient $a_{_{ m S}}$					
Variant nr.	4		5		6	
Record nr.	#4	19	#382		#345	
Material thickness	9 r	nm	12 mm		24 mm	
See figure	6	5	7		8	
Frequency [Hz]	1/3 oct	1/1 oct	1/3 oct	1/1 oct	1/3 oct	1/1 oct
100	0,00		0,02		0,04	
125	0,07	0,06	0,08	0,08	0,11	0,11
160	0,10		0,14		0,18	
200	0,15		0,20		0,26	
250	0,24	0,24	0,30	0,32	0,41	0,41
315	0,34		0,45		0,55	
400	0,48		0,58		0,68	
500	0,48	0,60	0,58	0.70	0,88	0,80
630	0,71	0,00	0,82	0,70	0,91	0,00
800	0,84		0,91		0,97	
1000	0,91	0,92	0,93	0,95	0,99	0,98
1250	1,00		1,00		0,99	
1600	1,02		0,99		0,98	
2000	1,00	0,98	0,96	0,96	0,97	0,96
2500	0,93		0,92		0,94	
3150	0,87		0,90		0,97	
4000	0,87	0,91	0,90	0,95	0,97	0.99
5000	0,99	0,51	1,00	0,55	1,01	0,55
a	0.55	5 (H)	0,60	) (H)	0,70	) (H)
a w						` ′
SAA	0,	69	0,	73	0,	79

### Airgap of 200 mm

		sound absorption coefficient $a_{_{\mathrm{S}}}$					
Ī	Variant nr.	7		8		9	
	Record nr.	#2	34	#271		#308	
	Material thickness	9 r	nm	12 mm		24 mm	
	See figure	9	9	10		11	
Ī	Frequency [Hz]	1/3 oct	1/1 oct	1/3 oct	1/1 oct	1/3 oct	1/1 oct
	100 125 160	0,13 0,35 0,53	0,34	0,19 0,42 0,60	0,40	0,14 0,37 0,56	0,36
	200 250 315	0,57 0,74 0,79	0,70	0,61 0,75 0,87	0,74	0,62 0,82 0,94	0,79
	400 500 630	0,85 0,87 0,88	0,87	0,87 0,89 0,88	0,88	0,90 0,93 0,87	0,90
	800 1000 1250	0,71 0,69 0,82	0,74	0,73 0,75 0,87	0,78	0,77 0,81 0,94	0,84
	1600 2000 2500	0,86 0,85 0,91	0,87	0,88 0,91 0,96	0,92	0,93 0,96 0,99	0,96
	3150 4000 5000	0,92 0,91 0,96	0,93	0,96 0,98 1,01	0,98	1,01 0,99 1,05	1,02
	a <sub>w</sub> SAA	0,85	5 (H) 80	0,90	) (H) 83	0,90	) (H) B7

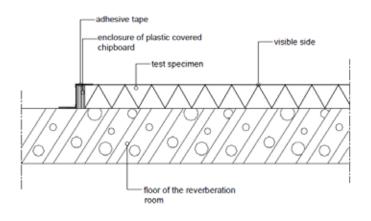


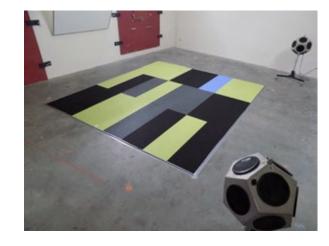


#### MEASUREMENT OF SOUND ABSORPTION IN A REVERBERATION ROOM **ACCORDING TO ISO 354:2003**

Variant 1: Echoshape, t = 9 mm, gap = 0 mm

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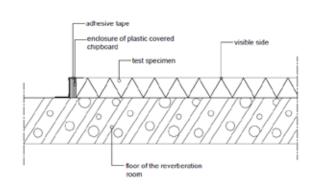


- 1/3 oct.

\* 1/1 oct.

#### MEASUREMENT OF SOUND ABSORPTION IN A REVERBERATION ROOM **ACCORDING TO ISO 354:2003**

Variant 2: Echoshape, t = 12 mm, gap = 0 mm





Volume reverberation room: 214 m<sup>3</sup>

Surface area sample: 11,52 m<sup>2</sup>

Heigth of the construction: 9 mm

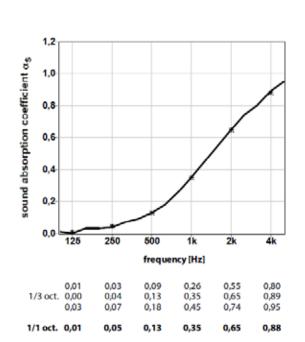
Measured at: Peutz Laboratory for Acoustics

Signal: Broad-band noise

Bandwidth: 1/3 octave

 $\alpha_{w}$  (ISO 11654) = 0,25(H)

SAA (ASTM - C423) = 0.30



Volume reverberation room: 214 m<sup>3</sup> Surface area sample: 11,52 m<sup>2</sup> Heigth of the construction: 12 mm

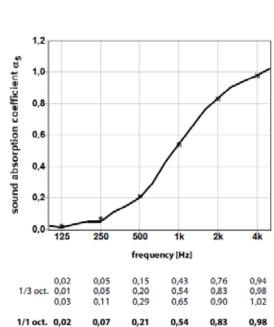
Measured at: Peutz Laboratory for Acoustics

Signal: Broad-band noise

Bandwidth: 1/3 octave

 $a_w$  (ISO 11654) = 0,25(H)

SAA (ASTM - C423) = 0,41



- 1/3 oct.

★ 1/1 oct.

1/1 oct. 0,02 0,07 0,21 0,83 0,98



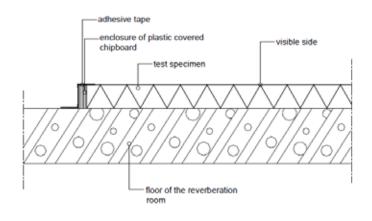


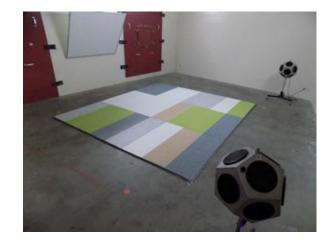


#### MEASUREMENT OF SOUND ABSORPTION IN A REVERBERATION ROOM **ACCORDING TO ISO 354:2003**

Variant 3: Echoshape, t = 24 mm, gap = 0 mm

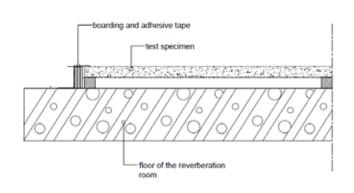
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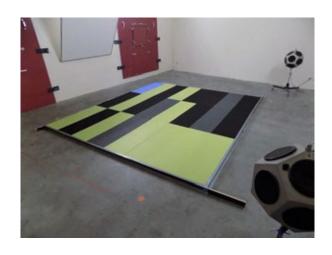




#### MEASUREMENT OF SOUND ABSORPTION IN A REVERBERATION ROOM **ACCORDING TO ISO 354:2003**

Variant 4: Echoshape, t = 9 mm, gap = 50 mm





1/3 oct.

★ 1/1 oct.

- 1/3 oct. ★ 1/1 oct.

Volume reverberation room: 214 m<sup>3</sup>

Surface area sample: 11,52 m<sup>2</sup>

Heigth of the construction: 24 mm

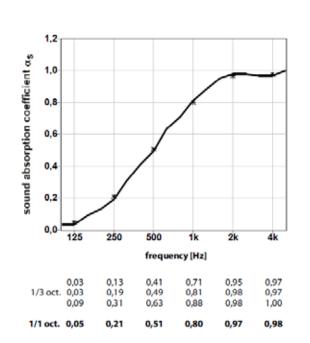
Measured at: Peutz Laboratory for Acoustics

Signal: Broad-band noise

Bandwidth: 1/3 octave

 $\alpha_{w}$  (ISO 11654) = 0,25(H)

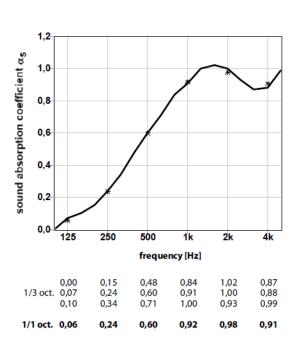
SAA (ASTM - C423) = 0,62



Volume reverberation room: 214 m<sup>3</sup> Surface area sample: 11,52 m<sup>2</sup> Heigth of the construction: 59 mm Measured at: Peutz Laboratory for Acoustics Signal: Broad-band noise

 $\alpha_{w}$  (ISO 11654) = 0,55(H) SAA (ASTM - C423) = 0,69

Bandwidth: 1/3 octave



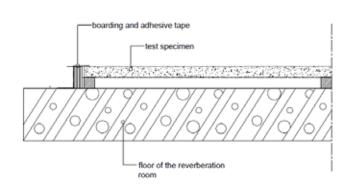




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#### MEASUREMENT OF SOUND ABSORPTION IN A REVERBERATION ROOM **ACCORDING TO ISO 354:2003**

Variant 5: Echoshape, t = 12 mm, gap = 50 mm



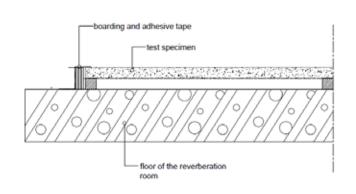


- 1/3 oct.

★ 1/1 oct.

#### MEASUREMENT OF SOUND ABSORPTION IN A REVERBERATION ROOM **ACCORDING TO ISO 354:2003**

Variant 6: Echoshape, t = 24 mm, gap = 50 mm





- 1/3 oct.

★ 1/1 oct.

Volume reverberation room: 214 m<sup>3</sup>

Surface area sample: 11,52 m<sup>2</sup>

Heigth of the construction: 62 mm

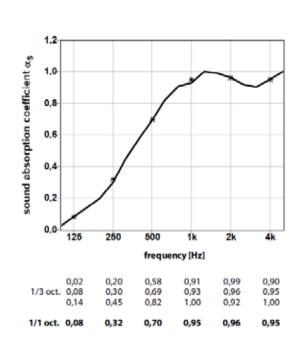
Measured at: Peutz Laboratory for Acoustics

Signal: Broad-band noise

Bandwidth: 1/3 octave

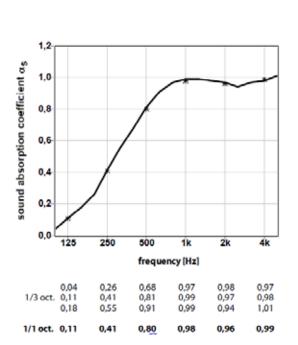
 $\alpha_{\rm w}$  (ISO 11654) = 0,60 (H)

SAA (ASTM - C423) = 0.73



Volume reverberation room: 214 m<sup>3</sup> Surface area sample: 11,52 m<sup>2</sup> Heigth of the construction: 74 mm Measured at: Peutz Laboratory for Acoustics Signal: Broad-band noise Bandwidth: 1/3 octave

 $\alpha_{\rm w}$  (ISO 11654) = 0,70 (H) SAA (ASTM - C423) = 0,79



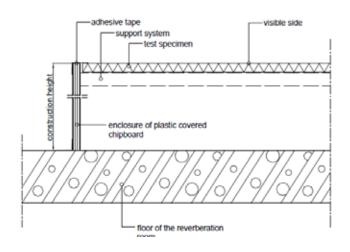


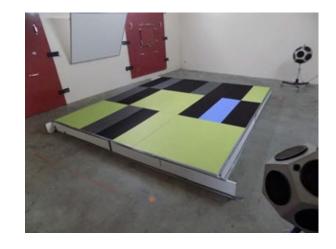
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#### MEASUREMENT OF SOUND ABSORPTION IN A REVERBERATION ROOM **ACCORDING TO ISO 354:2003**

ACOUSTICS

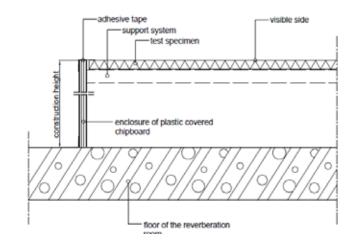
Variant 7: Echoshape, t = 9 mm, gap = 200 mm





#### MEASUREMENT OF SOUND ABSORPTION IN A REVERBERATION ROOM **ACCORDING TO ISO 354:2003**

Variant 8: Echoshape, t = 12 mm, gap = 200 mm





- 1/3 oct.

\* 1/1 oct.

Volume reverberation room: 214 m<sup>3</sup>

Surface area sample: 11,52 m<sup>2</sup>

Heigth of the construction: 209 mm

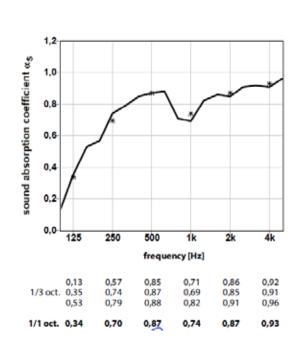
Measured at: Peutz Laboratory for Acoustics

Signal: Broad-band noise

Bandwidth: 1/3 octave

 $\alpha_{\rm w}$  (ISO 11654) = 0,85 (H)

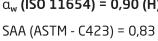
SAA (ASTM - C423) = 0.80

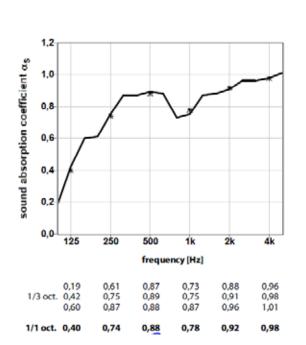


- 1/3 oct.

★ 1/1 oct.

Volume reverberation room: 214 m<sup>3</sup> Surface area sample: 11,52 m<sup>2</sup> Heigth of the construction: 212 mm Measured at: Peutz Laboratory for Acoustics Signal: Broad-band noise Bandwidth: 1/3 octave  $\alpha_{\rm w}$  (ISO 11654) = 0,90 (H) SAA (ASTM - C423) = 0.83

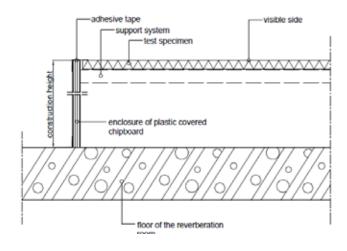


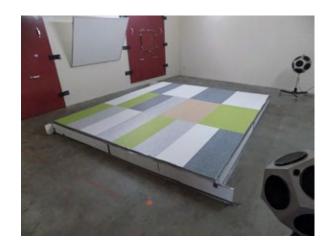




# MEASUREMENT OF SOUND ABSORPTION IN A REVERBERATION ROOM ACCORDING TO ISO 354:2003

Variant 9: Echoshape, t = 24 mm, gap = 200 mm





Volume reverberation room: 214 m³

Surface area sample: 11,52 m²

Heigth of the construction: 224 mm

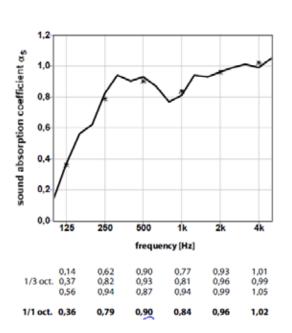
Measured at: Peutz Laboratory for Acoustics

Signal: Broad-band noise

Bandwidth: 1/3 octave

 $a_{w}$  (ISO 11654) = 0,90 (H)

SAA (ASTM - C423) = 0,87



— 1/3 oct.
★ 1/1 oct.

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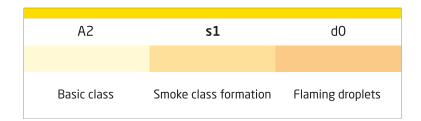


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The main purpose of ensuring fire safety is to minimize the degree of destruction arising from an outbreak of fire. When providing fire safety, above all else, the type of building and room in which the suspended ceiling system to be installed is important. During the initial stages of a fire there are three critical conditions to be considered:

- Suspended ceilings should not contribute to the spread of the fire or the formation of smoke. This may be ensured by the use of suspended ceiling systems that conform to the Euro class B-s1 (s2) d0 class of reaction to fire.
- While rescue and evacuation operations are conducted during the early stages of the fire, suspended ceiling systems should not be demolished or collapse. This is possible with suspended ceiling sytems capable of withstanding heat up to approximately 300°C.
- Suspended ceiling systems should not include any combustible materials.

#### **Test and Classification**



- Basic classes
- A1, A2, B,C,D, E and F (A1; the best, F; the worst)
- Smoke formation classes
- s1, s2, and s3 (s1; the best)
- Flaming droplet classes d0, d1,d2, (d0; the best)

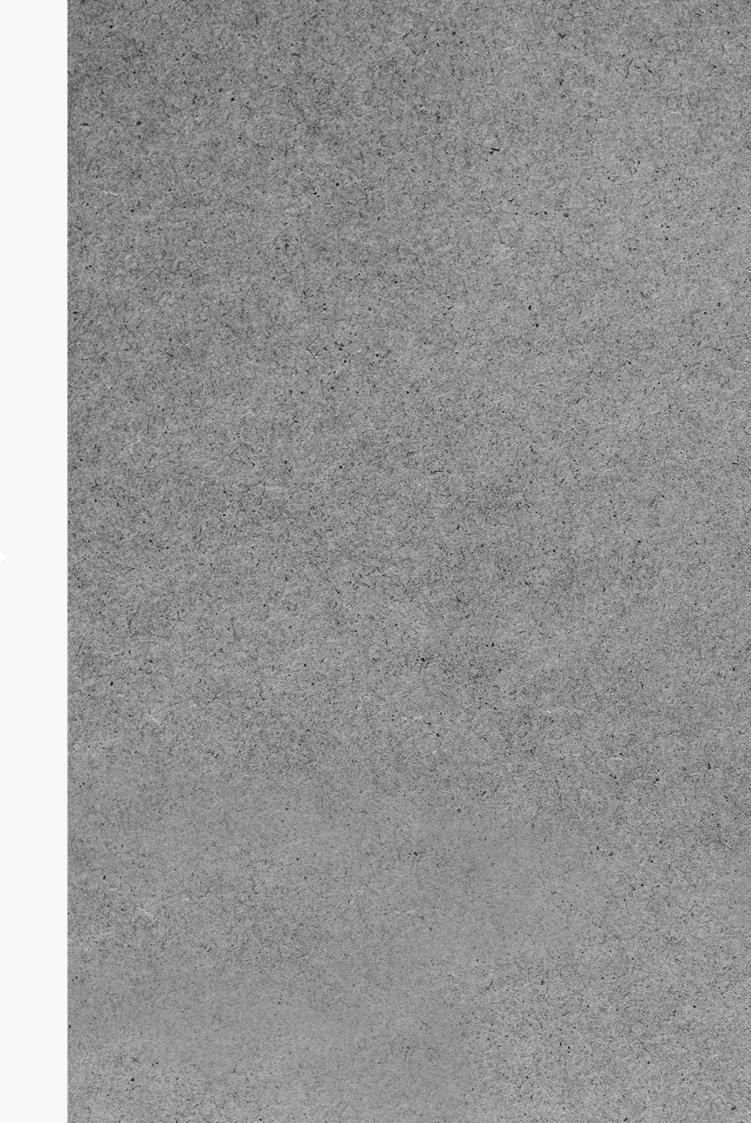
#### Fire reaction class- Euroclass (EN 13501-1) standard

A1		
A2-s1, d0 A2-s2, d0 A2-s3, d0 B-s1, d0 B-s2, d0 B-s3, d0	A2-s1, d1 A2-s2, d1 A2-s3, d1 B-s1, d1 B-s2, d1 B-s3, d1	A2-s1, d2 A2-s2, d2 A2-s3, d2 B-s1, d2 B-s2, d2 B-s3, d2
C-s1, d0 C-s2, d0 C-s3, d0	C-s1, d1 C-s2, d1 C-s3, d1	C-s1, d2 C-s2, d2 C-s3, d2
D-s1, d0 D-s2, d0 D-s3, d0	D-s1, d1 D-s2, d1 D-s3, d1	D-s1, d2 D-s2, d2 D-s3, d2
E E-d2 F		

The results as presented here relate only to the tested items and laboratory conditions as described in this report. The laboratory can make no judgement about the representativity of the tested samples. The test report ahead is valid as long as the tested constructions and/or materials are unchanged.

#### Fire Reaction Performance Classes for Building Materials Other Than Flooring

Inflammables Feature of the Material	No Smoke Formation	No Burning/ Dripping Particles	European Class as per TS EN 135011 Inflammables
Inflammables	X	X	A1
Hard-flammable	Х	Х	A2-s1, d0
Hard flaming	Х	X	B, C-s1, d0
		Х	A2-s2, d0 A2, B, C-s3, d0
	Х		A2, B, C-s1, d1 A2, B, C-s1, d2
(minimum)			A2, B, C-s3, d2
Normal flaming		Х	D-s1,d0 D-s2,d0 D-s3,d0 E
			D-s1,d2 D-s2,d2 D-s3,d2
(minimum)			E-d2
Easy-flaming			F



# echoshape



Rak 22, 1551 NA Westzaan

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INTEGRA-GROEP.COM