

Interior

# Acoustic Element

- panel
- lamella



08/2021 | AP EN 5

**Schotten  
& Hansen**

Nature Refined.

# Acoustic Element

## Product Description

- The Schotten & Hansen acoustic element is available as a panel in 1180 mm width and as a lamella in 390 mm width.
- The acoustic element is intended for the application on interior elements without mechanical stress and can be processed by interior outfitters and carpenters.
- The hardly visible microperforation absorbs the sound and ensures a pleasantly soft room acoustics. Whether in quiet or noisy environments, the acoustic elements create a clearly noticeable soft silence.
- Next to oak in one of our standard colours, the Schotten & Hansen veneer solutions are also available in other wood species or custom colours.
- As the Schotten & Hansen veneer solutions are provided with a prefinished surface, no surface treatment after processing is required.
- The application of surface-finished veneer requires a special handling of the material. Training in use of these pre-finished veneers is provided by Schotten & Hansen.

## Product Information

<b>Area of application</b>	Acoustic element ready for installation or for further processing into interior elements, e.g. wall / ceiling panels
<b>Description</b>	Oak acoustic element microperforated with Schotten & Hansen surface Other wood species possible on request
<b>Length</b>	2820 mm Other lengths possible on request
<b>Width</b>	1180 mm - acoustic panel / 390 mm - acoustic lamella Other widths possible on request
<b>Thickness</b>	approx. 16.5 mm ( $\pm 0.3$ mm)
<b>Weight</b>	approx. 11 kg / m <sup>2</sup>
<b>Construction</b>	0.7 mm sliced veneer top layer, microperforated (0.3 mm hole diameter / 467,500 holes / m <sup>2</sup> ) Multilayer construction: MDF exterior (moisture-resistant) glued on acoustic fleece (0.3 mm)
<b>Surface</b>	Schotten & Hansen permeable surface Surface treatment with natural oils, resins and waxes
<b>Application</b>	In the application description available on request, our recommendations for handling are described
<b>Cleaning &amp; Care</b>	Schotten & Hansen cleaning and maintenance products are recommended For further information please refer to the cleaning and maintenance instructions or contact our service department: <a href="mailto:service@schotten-hansen.com">service@schotten-hansen.com</a>
















All information in the data sheet as well as our further advice and consultation on application/use is based on empirical and scientific experiences. Therefore, these are provided without obligation or guarantee. Measurements may vary for production-related reasons. Due to the multitude of materials and different processing conditions, it is obligatory on the purchaser to verify the product's suitability for the requested purpose prior to the start of production.

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# Acoustic Element

## Oak Edition 21

	light	medium	dark
Pebble Stone			
Oyster			
Linen			
Smoke			
Mocha			

Special colour possible on request.

## Selection

1. Fine veneer selection	Rift (width variation 70 – 160 mm)
1. Fine veneer selection	Cathedral (width variation 120 – 320 mm)
1. Fine veneer selection	Solid wood character (width variation 70 – 320 mm)

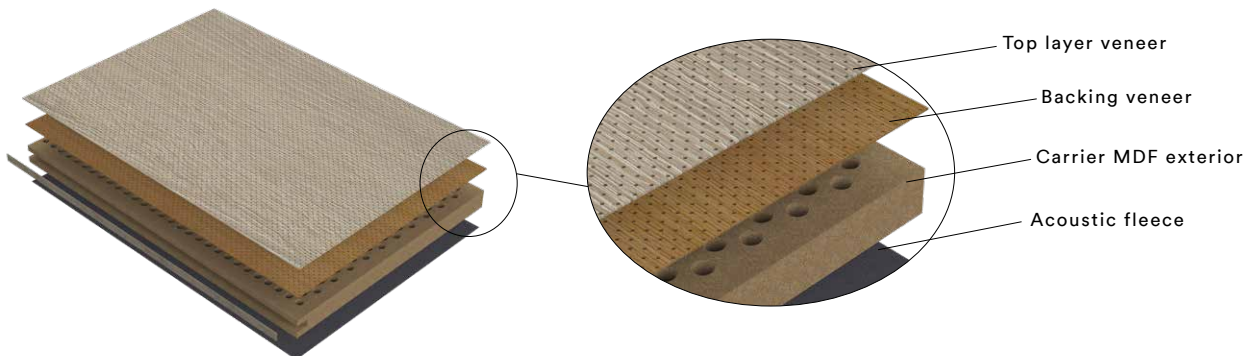
The jointing technique is called mix-matched, which results in a mixed but harmonious veneer pattern of each veneer selection  
Fine selection in principle knot-free

Variations in widths can deviate downwards at boarder areas

## Treatment

1. Brushed	The wood's typical grain structure is accentuated through brushing
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## Construction



The long and the front sides are grooved and edged with the veneer edge `Ascona` (2-layer veneer, rounding R1)

Product	Acoustic panel & Acoustic lamella
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Product Name	Acoustic element
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Differences in colour between products is subject to variations and display exhibits or samples, as far as these are due to the natural quality of the used material as well as customary.

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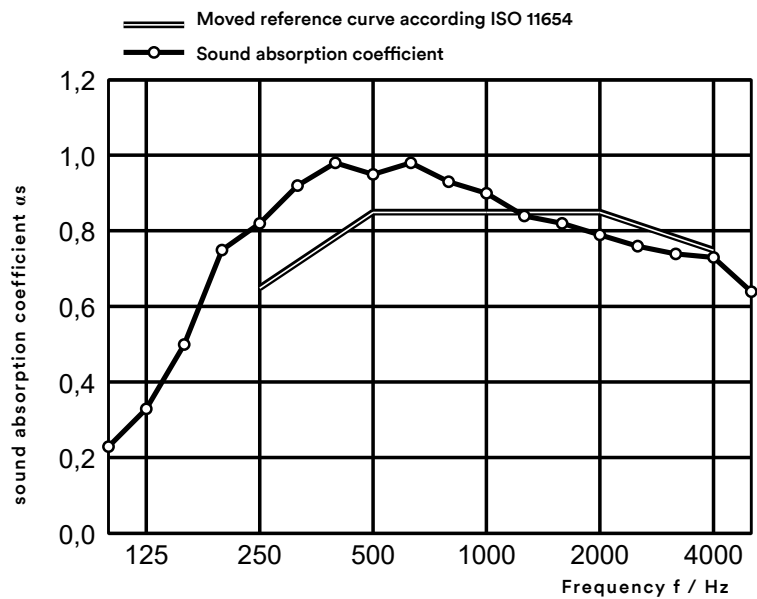
# Acoustic Element

## Acoustic Performance

Evaluation according to ISO 11654	$\alpha_w = 0.85$ (Sound absorption coefficient)
Evaluation according to ASTM C423	NRC = 0.85 (Noise Reduction Coefficient)
Evaluation according to ASTM C423	SAA = 0.87 (Sound Absorption Average)

### $\alpha_s$ Sound absorption coefficient

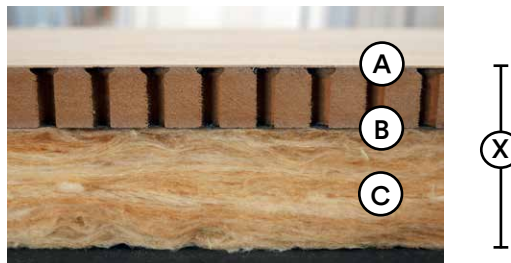
frequency [Hz]	third $\alpha_s$	octave $\alpha_p$
100	0.23	
125	0.33	0.35
160	0.50	
200	0.75	
250	0.82	0.85
315	0.92	
400	0.98	
500	0.95	0.95
630	0.98	
800	0.93	
1000	0.90	0.90
1250	0.84	
1600	0.82	
2000	0.79	0.80
2500	0.76	
3150	0.74	
4000	0.73	0.70
5000	0.64	



$\alpha_s$  Sound absorption coefficient according to ISO 354

$\alpha_p$  Practical sound absorption coefficient according to ISO 11654

### Test setup



(A) Acoustic element	approx. 16.5 mm
(B) Backside	Acoustic fleece
(C) Insulation	mineral wool insulation 30 mm / 50 kg
(X) Total thickness	approx. 50 mm