

# Lignokustik beta N

The 6 mm thick **beta N**-membrane is the visible part of a 22 mm thick acoustical sandwich construction. The center of the sandwich can be made of class 2, class 1 or even class 0 material.

Edge treatments such as grooving, edge banding, etc. can also be applied to the beta construction. A perforated hardboard on the back of the panel completes the assembly.

**beta N** panels can also be produced in a curved version upon request, subject to limitations.

### Sizes

Maximum size: 3000 x 600 mm  
 Larger sizes available upon request, subject to limitations  
 Thickness: 22 mm / door elements 22 mm  
 Axes centres: 5, 10, 15, 20 mm

### Finishes

Available in most wood species  
 Painted in RAL or NCS colours  
 Low pressure laminates, subject to availability

### Fire ratings

class 2, class 1 or class 0

**Weight** approx. 10.5 kg/m<sup>2</sup>

### Please note

beta N panels must be installed with a minimum shadow gap of 3 mm. Diagonal cuts of less than 30° to the groove are not recommended as they will cause the grooved membrane to be unstable.

Coloured surfaces (RAL or NCS) of the beta membrane may appear darker than straight surfaces due to the shadowing of the grooves.

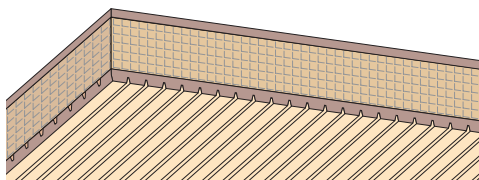
### Site conditions

beta N panels are used as sound absorbing wall and ceiling panels. They are only intended to be installed in climate controlled areas; i.e. with a relative air humidity of 35% - 55% and a room temperature of 17° to 27° Celsius.

Panels must be acclimatized to final site conditions, for a minimum of 72 hours prior to installation.

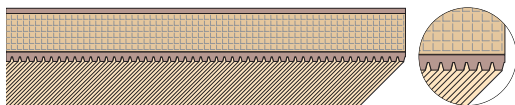
We reserve the right to revise the panel design or construction methods at any time without prior notice of any kind.

## beta N

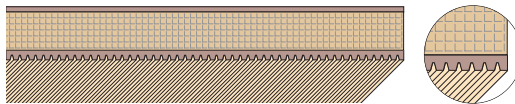


- Rear side perforated hard board
- Center particle board
- beta N membrane

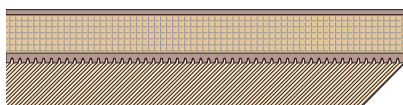
### Width Dimensions



**At base of grooves** Axes centre 5 mm: must end with 0 mm or 5 mm  
 Axes centre 10 mm: must end with 0 mm

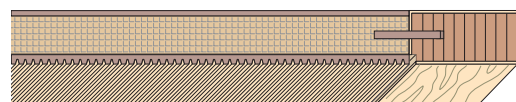


**At face of panel** Axes centre 5 mm: must end with 3 mm or 8 mm  
 Axes centre 10 mm: must end with 8 mm



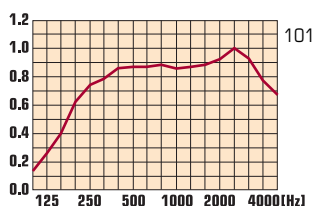
**With 1 mm edge-banding** Axes centre 5 mm: must end with 0 mm or 5 mm  
 Axes centre 10 mm: must end with 0 mm

### beta N

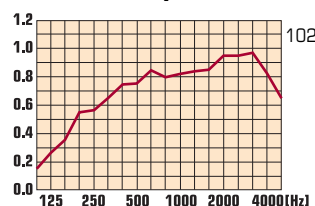


Optional horizontal perimeter frame

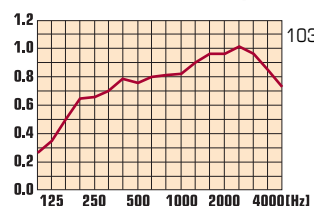
### Sound absorption (other tests see www.lignokustik.ch or on request)



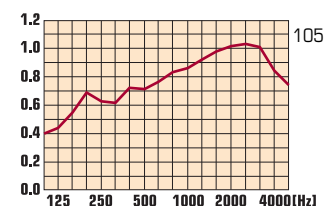
1 beta N Typ  
40 mm Insulation, h 62 mm



2 beta N  
no Insulation, h 122 mm



3 beta N  
Insulation 40 mm, h 162 mm



4 beta N  
40 mm Insulation, h 362 mm

Frequenz (Hz)	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
1 h 62 mm	0.14	0.27	0.40	0.62	0.74	0.79	0.87	0.88	0.88	0.89	0.87	0.88	0.89	0.92	1.00	0.93	0.78	0.68
2 h 122 mm	0.16	0.27	0.36	0.55	0.57	0.65	0.75	0.76	0.85	0.80	0.82	0.84	0.85	0.95	0.95	0.98	0.82	0.66
3 h 162 mm	0.27	0.35	0.50	0.65	0.66	0.70	0.79	0.77	0.80	0.81	0.82	0.90	0.97	0.97	1.01	0.97	0.85	0.73
4 h 362 mm	0.40	0.44	0.55	0.69	0.63	0.62	0.72	0.71	0.77	0.83	0.87	0.92	0.98	1.02	1.04	1.01	0.84	0.74

h = suspension height

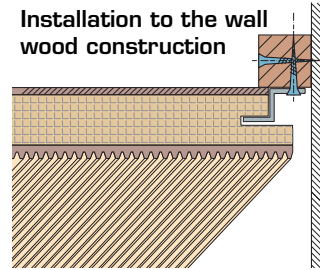
## Lignokustik beta N



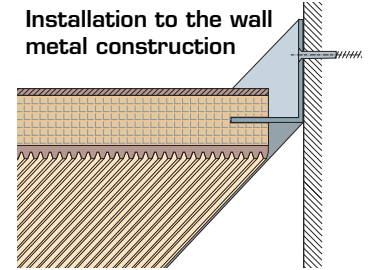
If cut-outs for lamps, fire protection, loudspeakers, etc. are required, we strongly recommend the use of a particleboard infill for each location. Please note that the sound absorption will be reduced as a result.

The field cutting of **beta N** panels is possible but requires a moderate level of skills as well as professional work tools and equipment to properly execute. Panels intended to be installed against exterior walls or under roof decks must include a ventilated air space behind the panels.

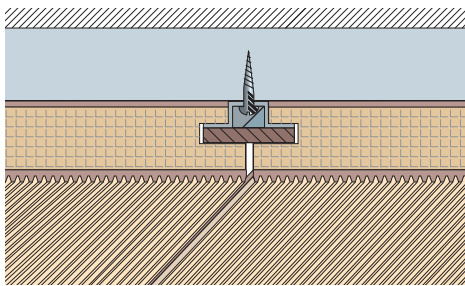
Installation to the wall wood construction



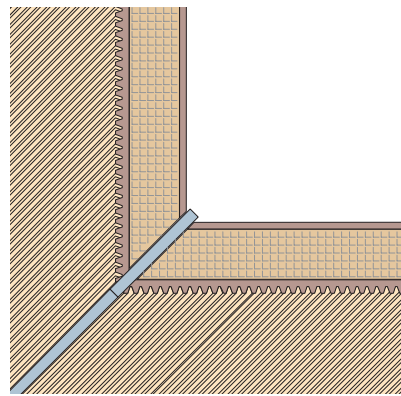
Installation to the wall metal construction



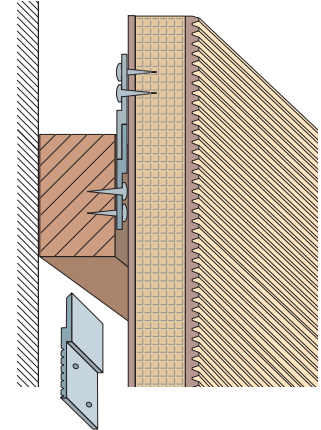
Installation detail with metal sub-construction



Corner detail



Wall detail



Optional factory supplied aluminium mounting clip (two per mounting point required)

### beta N door elements

**beta N** door elements have a visible 6mm thick **beta N**-membrane on one or both sides and a total thickness of 22 mm.

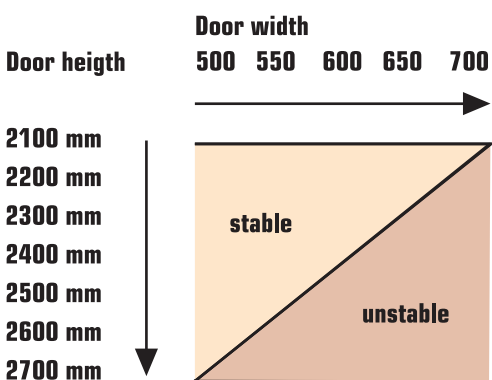
The rear membrane is also provided with ungrooved areas of approx. 60 mm in width on the vertical edges to facilitate the installation of hinges, latches or lock sets.

**beta N** door elements must be installed using hinges and latches of suitable strength and capacity.

For sizes larger than those indicated, it will be necessary to provide additional internal framing. Please note that the sound absorption will be reduced as a result.

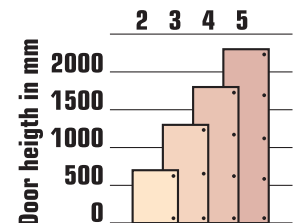
#### Door sizes

Maximum door size to remain stable:  
 door thickness: 22 mm

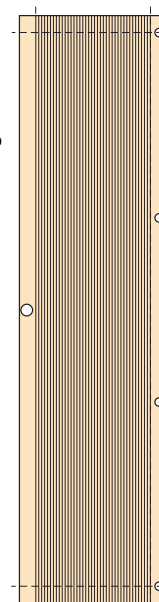


#### Number of hinges required

Based on a standard door width of 600 mm.  
 For improved stability, we recommend shorter distances between hinges.



Inside view with ungrooved areas



Design possibilities

