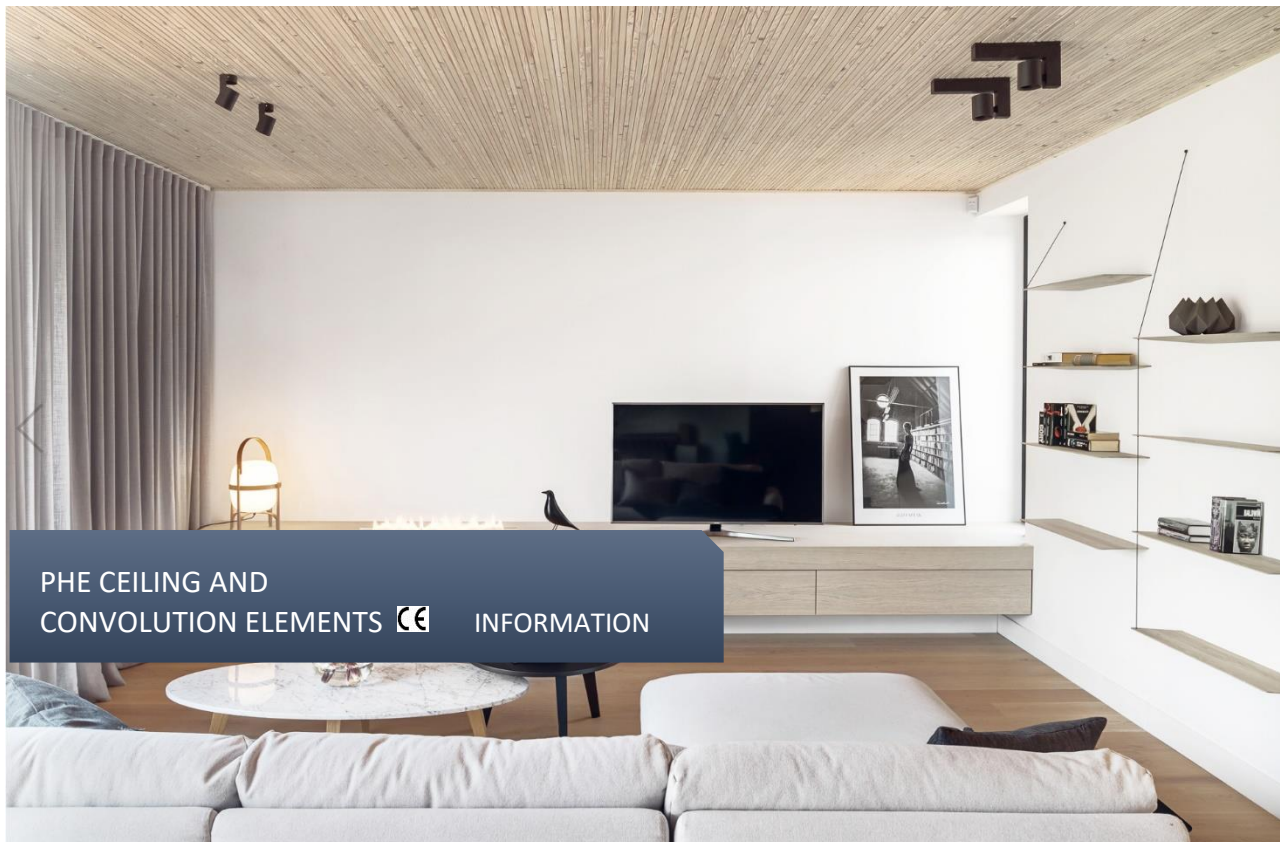


PROFILE-WOOD-ELEMENTS (PHE)

For residential and commercial buildings



PHE CEILING AND
CONVOLUTION ELEMENTS **CE** INFORMATION

A top class indoor climate

A healthy and very pleasant room climate is created through the use of natural and controlled renewable wood building materials in combination with a diffusion-open construction method and controlled ventilation with heat recovery.

Healthy living

The technical drying of the used wood replaces a chemical impregnation. A glue-free connection of the individual elements contributes significantly to healthy living.

Warm surfaces

Wood is a particularly pleasant material for interior surfaces. Thanks to its low thermal diffusivity, the wood building material feels particularly warm and comfortable compared to other building materials such as steel, concrete.

Room acoustics

Due to the structured surface, the profiled wood elements reduce the reverberation time and thus improve the room acoustics.

PHE Elements



POSSIBLE APPLICATIONS

- ✓ Single-family and terraced houses
- ✓ Multi-storey residential buildings
- ✓ Office, commercial and hotel buildings
- ✓ Industrial and production halls
- ✓ Leisure facilities and sports halls

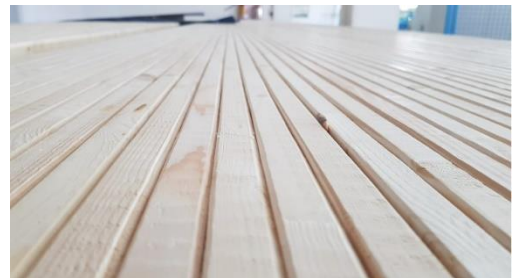
ADVANTAGES

- ✓ High load-bearing capacities with low bulk density
- ✓ Fast and dry system construction
- ✓ High fire resistance and chemical resistance
- ✓ Better thermal insulation properties than concrete
- ✓ Up to 6dB better sound insulation values than glued board stacking ceilings
- ✓ Naturally renewable and 100% recyclable building material
- ✓ Positive effects on the Climate protection through storage of CO₂

QUALITY

A distinction is made between invisible (NSi) and visible (Si) quality. The difference between NSi and Si is just the optics. The optical quality becomes correspondingly higher the less e.g. knots or other natural wood defects are visible in the surface. Even with Si surfaces, small defects can occasionally occur, e.g. resin pockets, etc., which cannot be completely avoided during the production process.

DIMENSIONS	Thicknesses: from 8 cm – 25 cm Widths: up to 120 cm Lengths: stepless up to 12 m
STRENGTH CLASS	C24
TYPE OF WOOD	European Spruce (MNO)
CERTIFICATES	ETA-16/0162 of 06.08.2018 CE-Zertifizierung of 23.09.2019 CE 1359_CPR-0793 Holzforschung Austria
SUSTAINABILITY	Raw material wood comes from sustainably managed forests



<https://www.hundegger.de/de/maschinenbau/produkte/phe-fertigungslinie/video-phe-linie.html>

Wood is a natural product. The production of Si quality always depends on the available raw material, which is offered very differently depending on the season.



PRODUCT DATA:



ELEMENT CONSTRUCTION	Side products made of spruce wood are supplied with a, in our PHE line from Hundegger, connected to a continuous strand and provided on one side (later underside) with a profile. This "endless" profiled board is then shortened to the desired element length. The individual board layers are stacked layer by layer, pressed and connected with aluminium grooved pins.
WOOD PROTECTION	Technical drying of spruce boards replaces chemical wood preservation
SPLICE	Aluminium grooved pins according to (ETA approval (ETA-13/0801))
FIRE BEHAVIOUR	Pursuant to the Commission Decision 2003/43/EC as amended the solid wood panels correspond to the following Euroclasses: <ul style="list-style-type: none"> ➤ Solid wood panels with the exception of floor coverings ($p_{min}=400 \text{ kg/m}^3$) correspond to Euroclass D-s2, d0 ➤ Solid wood panels as floor covering ($p_{min}=400 \text{ kg/m}^3$) correspond to the Euroclass Dfl-s1
THERMAL CONDUCTIVITY λ	0,13W/(m·K)
RAW DENSITY	approx. 480 kg/m ³ at 12% wood moisture content
ACOUSTIC PROTECTION	Excellent sound insulation due to solid wood construction. Through additional measures, especially in the floor area, improved impact sound and vertical airborne sound insulation values can also be achieved.
Further technical data can be found under ETA-16/0162	

Thank you for your interest in our high-quality PHE components.

We will be pleased to make you an offer for delivery and support you in the planning and realisation of your building project.

You can reach us under:



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