



HBS

Wood construction systems



Our Company

As a subsidiary of the ante Group, one of the largest owner-managed family companies in the European timber industry, our ties to wood as a resource span almost 100 years.

Founded by Josef Ante in Züschen (NRW) in 1927, the family-run company is now successfully managed in its third and fourth generations. With a workforce of over 1,400 employees, the ante Group produces modern wood products at six sites and sells them all over the world.

With HBS, we are continuing this story on into the modern world of timber construction. With our state-of-the-art production facilities up and running in Berga since 2021 and our well-established production site in Allendorf (Eder) - Somplar, we consider ourselves generalists when it comes to timber building materials that meet today's requirements for efficient and climate-friendly construction.

Along with the production of CLT (cross-laminated timber) and project-specific CLT refinement, the HBS portfolio also includes the planning and manufacture of roof, ceiling and wall elements using BSH and KVH. In parallel to CLT production, we produce custom-made timber constructions to match the architect's or builder's specifications in our timber machining centres.

We obtain the raw materials for our production in Berga from the nearby ante-holz sawmills in Rottleberode. The HBS production site Allendorf (Eder) - Somplar is located directly on the grounds of the head office of ante-holz. Short paths are key for us when it comes to preserving the positive climate footprint of our products.

The need for sustainable building materials for the extension and creation of affordable living space is set to rise sharply over the coming years, particularly in urban areas. Our competence centre at the site in Berga therefore has well-versed experts in timber construction on hand to help. These experts support architects, tradespeople and developers in planning modern, durable and high-quality buildings. Our professional scope of services includes the preparation of structural analyses, sectioning, timber machining data, project-specific loading and comprehensive consulting on building physics and sound insulation. Our production portfolio ranges from simple canopies to complex timber construction projects.

The fundamental values of our family company have always included reliability, customer focus and outstanding service. Alongside highly motivated employees, a modern machinery fleet ensures the high quality standard maintained across the entire ante Group in all areas of production. All this makes us your reliable system partner for sustainable construction with CLT, from planning to the finished product.

The ante Group is able to meet the current demands of the market with numerous internationally recognised certificates such as PEFC, DIN Plus and CE.

You can learn more about HBS and our extensive supply range in this brochure. Should you have any questions, our team of experts will be happy to help at any time. We look forward to speaking to you and assisting you with your next timber construction project!

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*Forests are the lungs of our land,
purifying the air and giving
fresh strength to our people.*

Franklin D. Roosevelt

Our locations in Germany & Poland



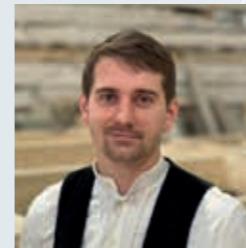
- ① Production, sales and timber construction competence center
- ② Production and assembly center
- ③ Technical and sales office
- ④ Sales office

We ...



„HBS Berga is a state-of-the-art industrial facility for producing CLT, which is used as a solid, laminar wood product for load-bearing purposes in modern timber construction.“

Hubert Teufel
Plant Manager HBS site Berga
Degree in Business Administration; Timber Manager; Master Sawmill Operator



„We offer planning support and customised timber machining to match to ensure a clean, fast workflow in top quality on the construction site.“

Kevin Backhaus
Technical Manager and Manager of Timber Machining Centres (Berga and Allendorf (Eder) - Somplar)
Bachelor Professional Carpenter



„Sustainability and efficiency are hot topics in the construction industry. With the products from HBS, we are able to offer intelligent solutions for a green future!“

Richard Steindl
Sales Manager
Dipl.-Ing. (FH) Timber Construction & Expansion



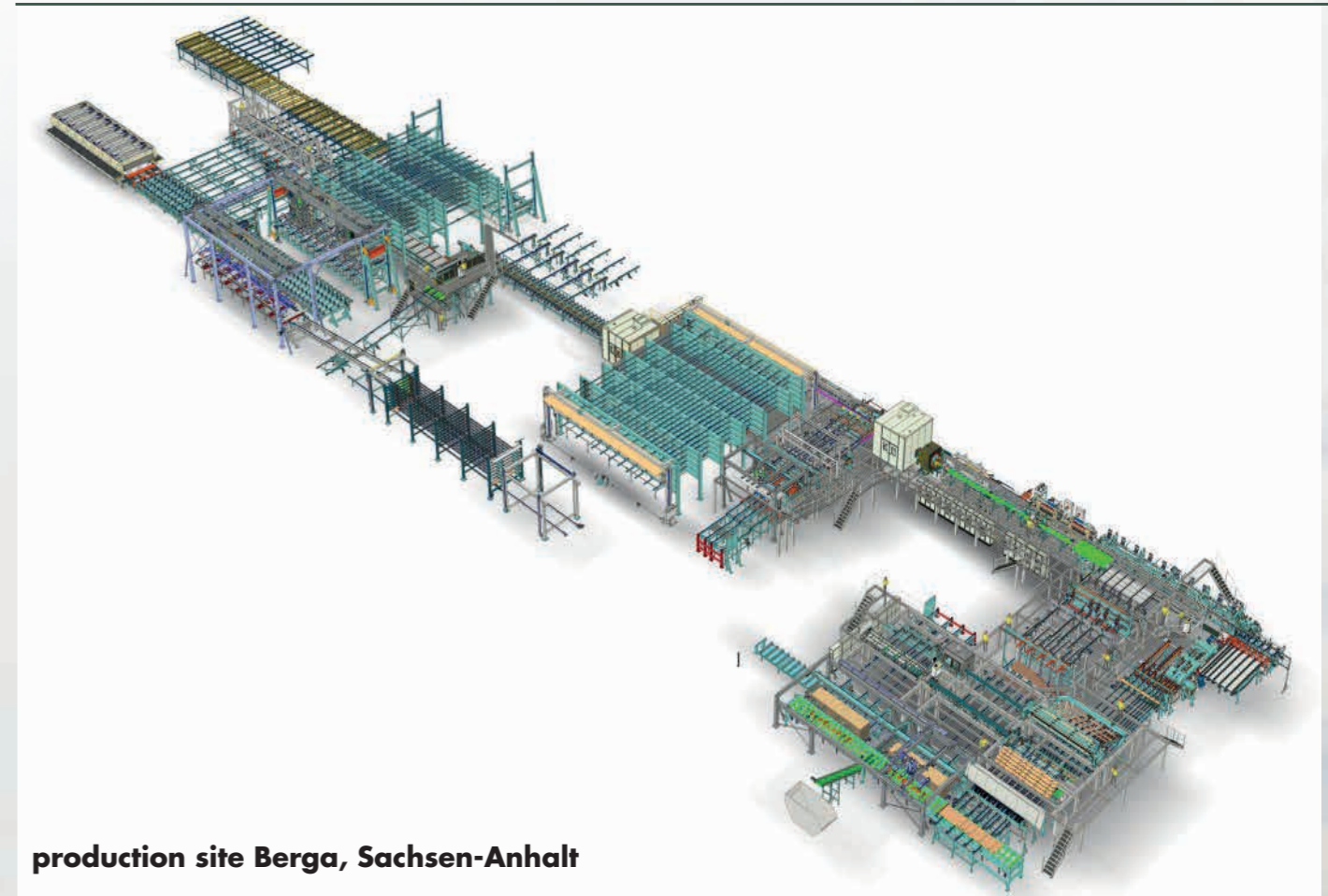
„CLT is setting new standards in modern timber construction to enable a high, precise level of pre-fabrication in the parts required.“

Jens P. Tripp
Head of Product Management and Head of Technical Marketing
Certified Construction Technician; Bachelor Professional Carpenter; Specialist Consultant in Prefabricated Construction (IHK)

... and many other committed employees work every day on the optimal solutions for your construction project!

Facts HBS production site Berga

- production CLT and KVH
- CLT production output of over 100.000 m³ / year
- KVH production output of over 50.000 m³ / year
- Entire system from Ledinek for the production of CLT
- 2 PBA-Industry from Hundegger
- 1 UFA from Hundegger



production site Berga, Sachsen-Anhalt



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Sustainability

Climate change is changing the way people think. Which materials will help us to shape the world of tomorrow? Our objective needs to be a world that provides living space – also for future generations. Along with regionality and climate-neutral resources, sustainability plays a key role here.

Wood offers all of the above. It is natural, renewable and regional.

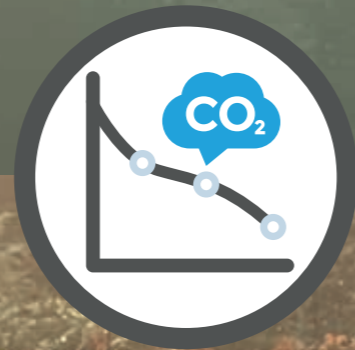
Wood grows by itself. There is no need to expend additional energy that would result in harmful greenhouse gas emissions.

The „production“ of wood as a resource also relieves the burden on the environment as it ties up harmful carbon dioxide (CO₂) during the growth process.

Building with durable wood products such as cross-laminated timber therefore provides an active climate protection method for long-term, eco-friendly relief for the atmosphere. Regional materials such as wood eliminate the need for long transport routes, additionally preventing harmful emissions.

Save CO₂

- Wood products store harmful CO₂ until they are burned or rot
- 1 m³ of wood absorbs 1 tonne of CO₂ and stores the carbon to release oxygen again
- One furnished single-family home ties up a CO₂ volume of up to 80 tonnes
- By using renewable wood in the construction trade, we replace CO₂-intensive materials such as concrete
- The use of wood and sustainable forestry cuts greenhouse gases by 14%
- Using wood in construction enables CO₂ savings of 30 million tonnes



Renewable resource

- Wood grows back – by 122 million cubic metres in Germany alone every year
- In Germany, enough wood to build a single-family home grows every 12 seconds
- In the forestry industry, we have pursued the principle of sustainability – not harvesting more wood than grows back – for more than 300 years
- Forests are natural climate protectors
- Sustainable, economic use of wood preserves and protects the forest as a habitat



Wood as a recyclable material

- Wood does not leave behind any waste
- Through reuse or recycling, wood products have a much longer life cycle
- Building with wood reduces our ecological footprint long term
- By practising sustainable forestry, every tree harvested is replaced and a new one planted
- No need for costly disposal



Scope of services



- ① CLT Roof
- ② CLT Ceiling
- ③ CLT exterior wall
- ④ CLT interior wall
- ⑤ Wood frame construction interior wall
- ⑥ Finishing and surface protection
- ⑦ ante Facade cladding



BV Wilhelm - Baden-Württemberg

The building with six residential units is, of course, heated with a pellet heating, which is supported by an elevated photovoltaic system and battery storage system. Alongside the multi-layered and highly efficiently insulated external walls, the relegated window surfaces, provided with shade by the balconies above and the considerable protruding roof overhang, ensure passive summer heat protection.

Planning also focused on the living comfort of the future residents. Double-walled sound insulation walls between the individual residential units ensure plenty of privacy and the necessary safety as fire protection walls. Future residents will also be able to hang up any kind of objects on the solid CLT walls – most of which are planked – using a simple wood screw or nail without any worries. Kitchen cabinets, flatscreen TVs and shelves can be effortlessly mounted after moving in, without the need for tedious pre-drilling or dowelling work.

The good interior climate provided by the natural properties of the vapour-diffusion-permeable timber walls, the energetic and financial savings during heating and the architectural possibilities come together to produce a unique, solid timber house.

Facts

- six residential units
- 1.955,4 m² / 300 m³ used CLT
- 1.794 drilled holes
- 262 milled sockets
- 6 required truckloads

Construction project

Building an apartment building, on the one hand solid like a stone house, but at the same time sustainable and energy-efficient like a wooden house - we recently fulfilled this wish of our customer Wilhelm in the Baden-Württemberg district of Freudenstadt. When constructing complex and demanding construction projects, HBS combines the advantages of CLT solid wood walls with the cost-effective yet high-quality properties of timber frame walls. With this efficient and flexible design, money could be saved especially for the non-load-bearing partition walls and, with its very low weight, also offers maximum design freedom. The ceiling and roof elements of the modern building are solid, large-area CLT components. The house gets its characterful wood look from the larch wood cladding HBS parent company ante-holz.

As Wilhelm jokingly puts it, it is „a real timber bomb“. Along with the precise construction execution by HBS, the huge CO₂ storage brought about by the very high content of solid timber was important to the developers as the renewable raw material of wood stores more CO₂ than is emitted during production. Accordingly, wood fibre insulation was installed beneath the rear-vented and natural wood façade. The slot-like wood elements attached around the balconies and the entrance enable the building's architecture to retain its delicate look despite the considerable wooden front and ensure a harmonious overall appearance.



Our product CLT



Intense research and development have qualified timber construction for the tasks of today. CLT (cross-laminated timber) is the state of the art when it comes to modern, solid timber construction. The finished product of the saw industry reinforces the natural benefits of wood as a resource, setting high hopes on the product's ecological properties for the construction industry.

Everything from a single source

As a system provider, we produce CLT wall and ceiling components CLT that can be installed either in combination with other timber products in our portfolio or on their own. Thanks to an in-house team of skilled architects, tradespeople and developers, we also offer you support with the planning and implementation of your projects.

Natural reinforcement

Our CLT is a solid drywall component consisting of several layers of solid timber. The longitudinal slats, which are 20, 30 or 40 millimetres thick, are usually glued together flat and crosswise in at least three layers. Nevertheless, the raw material remains almost untouched, with the content of the ecologically harmless glue amounting to less than one percent. In production, we work with state-of-the-art system solutions from Ledinek and Hundegger. Our CLT elements are glued edge-to-edge and possess ideal board properties, including in relation to their reduced air and noise permeability.

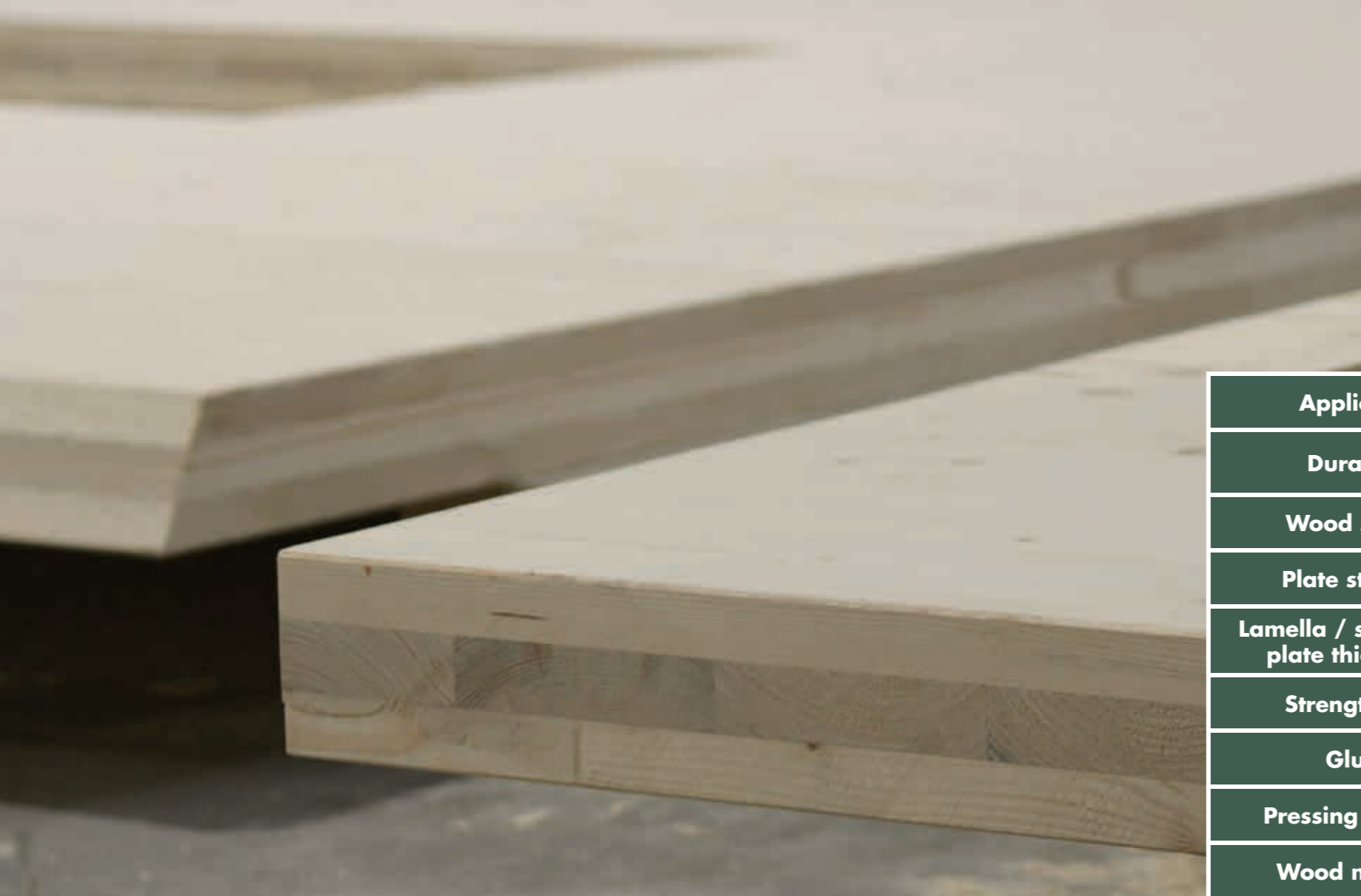


Deutsches
Institut
für
Bautechnik

DIBt



Technical characteristics



The deliberate arrangement helps to „block“ stacked fibres in the way they move. This property helps to prevent the wood from shrinking and swelling due to moisture.



Application	Wall, ceiling and roof components
Durability	approved for service classes 1 or 2 according to EN 1995-1-1
Wood species	Spruce (other softwoods such as fir, pine, Douglas fir, larch on request)
Plate structure	3, 5, 7 or more layers - also bonded fiber-parallel
Lamella / single-layer plate thicknesses	20, 30, 40 mm; other thicknesses on request
Strength class	C24
Gluing	PUR - Adhesive formaldehyde free
Pressing pressure	min. 0,6 N/mm ²
Wood moisture	12% (+/- 2%) in production
Max. size	Length up to 16.00 m (preferred length transport max. 13.60 m; overlength up to 19.00 m on request); width up to 3.50 m (preferred width transport 2.95 m)
Clearing widths	2,45 m / 2,75 m / 2,95 m / 3,15 m / 3,30 m / 3,50 m
Surface qualities	Non Visible (NSI); Industrial Visible (ISI); Residential Visible (SI); each ground
Weight	average bulk density 380 kg/m ³ ; 500 kg/m ³ for determination of transport weight
Shape change	in panel plane 0.02% per % change in wood moisture content; transverse to panel plane (in thickness direction) 0.24% per % change in wood moisture content
Thermal conductivity	$\lambda = 0,12$ W/mk according to EN ISO 10456
Heat accumulator-capacity	$c_p = 1600$ J/(kg*K) according to EN ISO 10456
Diffusion resistance	open to diffusion, vapor retardant / $\mu = 20$ (wet) - 50 (dry); depending on wood moisture content and number of glued joints
Air tightness	on request
Fire behavior	Euroklasse D-s2, d0
Fire resistance	on request

Board structures

Top layer crosswise

Element thickness (mm)	Name	Layers	Lamella structure (mm)						
			Q	L	Q	L	Q	L	
60	Q	3	20	20	20				
70	Q	3	20	30	20				
80	Q	3	30	20	30				
90	Q	3	30	30	30				
100	Q	3	30	40	30				
110	Q	3	40	30	40				
120	Q	3	40	40	40				
100	Q	5	20	20	20	20	20		
110	Q	5	20	20	30	20	20		
120	Q	5	30	20	20	20	30		
130	Q	5	30	20	30	20	30		
140	Q	5	40	20	20	20	40		
150	Q	5	40	20	30	20	40		
160	Q	5	40	20	40	20	40		

Top layer lengthwise

Element thickness (mm)	Name	Layers	Lamella structure (mm)							
			L	Q	L	Q	L	Q	L	Q
60	L	3	20	20	20					
70	L	3	20	30	20					
80	L	3	30	20	30					
90	L	3	30	30	30					
100	L	3	30	40	30					
110	L	3	40	30	40					
120	L	3	40	40	40					
100	L	5	20	20	20	20	20			
110	L	5	20	20	30	20	20			
120	L	5	30	20	20	20	30			
130	L	5	30	20	30	20	30			
140	L	5	40	20	20	20	40			
150	L	5	40	20	30	20	40			
160	L	5	40	20	40	20	40			
170	L	5	40	30	30	30	40			
180	L	5	40	30	40	30	40			
190	L	5	40	40	30	40	40			
200	L	5	40	40	40	40	40			
210	L	7	40	30	20	30	20	30	40	
220	L	7	40	30	30	20	30	30	40	
230	L	7	40	30	30	30	30	30	40	
240	L	7	40	30	30	40	30	30	40	
250	L	7	40	30	40	30	40	30	40	
260	L	7	40	30	40	40	40	30	40	
270	L	7	40	40	40	30	40	40	40	
280	L	7	40	40	40	40	40	40	40	

CLT Facts

- Board size up to 16 m x 3.5 m x 0.32 m (Berga) and 19 m x 3.90 m x 0.30 m (Allendorf (Eder) - Somplar)
- Production output of over 130,000 m³/year
- Layer production of up to 150 m³
- Integrated gluing line with hot-melt glue
- Fast-acting PUR adhesive with cold curing
- Highly flexible CLT production

Double layer lengthwise

Element thickness (mm)	Name	Layers	Lamella structure (mm)							
			L	L	Q	L	Q	L	L	
210	DLL	7	30	30	30	30	30	30	30	30
220	DLL	7	30	30	30	40	30	30	30	30
230	DLL	7	40	30	30	30	30	30	30	40
240	DLL	7	40	30	30	40	30	30	30	40
250	DLL	7	40	40	30	30	30	40	40	
260	DLL	7	40	40	30	40	30	40	40	
270	DLL	7	40	40	40	30	40	40	40	
280	DLL	7	40	40	40	40	40	40	40	



Surface qualities



*A house is not a home unless it contains
food and fire for the mind as well as the body.*

Benjamin Franklin



	Non Visible Quality (NSI)	Industrial Visible Quality (ISI)	Residential Visible-Quality (SI)
Wood species	admixture of other Wood species possible	a wood species, where spruce/fir is considered a wood species is considered	a wood species, where spruce/fir is considered a wood species is considered
surface	leveled, without further requirements	planed or sanded	planed or sanded
Joint width	max. 6 mm	max. 4 mm	max. 2 mm
Branches	Without restriction	firmly grown, black and fallen out knots from 30 mm average diameter are to be repaired	firmly grown, black and fallen out knots from 15 mm average diameter are to be repaired
Resin galls	permissible	permissible	up to 5 mm x 50 mm or with the same surface area are permissible, larger ones are to be repaired
Discoloration	Without restriction	up to 20 % of the surface	up to 5 % of the surface
Insect infestation	Feeding passages up to Ø 2 mm permissible	not permissible	not permissible
Bark ingrowth	permissible	permissible	sporadically permissible
Pith	permissible	permissible	sporadically permissible
Cracks	Limitation according to Strength grading	Limitation according to Strength grading	Beschränkung laut Festigkeitssortierung

Surface qualities of the visible side (top layer of solid wood lamellas) of the CLT at 12% wood moisture content



Surface protection CLT

If desired, our CLT products can be provided to you with a UV protective coating or a weather protection membrane. UV protective paint for wood is a colour-free wood preservative applied to combat yellowing and darkening of the wood. Depending on the project and component, we can apply a one-time, thin yellowing protection coat on your defined component in the plant to keep your wood surface permanently bright and naturally beautiful.

To protect CLT elements against the rain, weather-resistant membranes can be applied. These rain-proof and robust, fully self-adhesive membranes are predominantly used for secure moisture protection during transport, assembly and construction. Of course, wall elements can also be provided with a weather-resistant membrane.





CLT advantages

45%

shorter building time

We produce finished parts for you in the size you want. These modules are delivered to the construction site ready for installation and can be assembled straight away, helping you cut down on building time and costs.

10%

more living space

Wood comes with optimal insulation properties for modern, climate-friendly housing. As a result, you can gain up to 10% more usable space compared to conventional construction systems. Here's just one example: To achieve the same insulation properties contained within a 32 cm thick solid timber wall made of CLT, a brick or polystyrene wall would have to be at least 50 cm thick.

2/3

lower weight

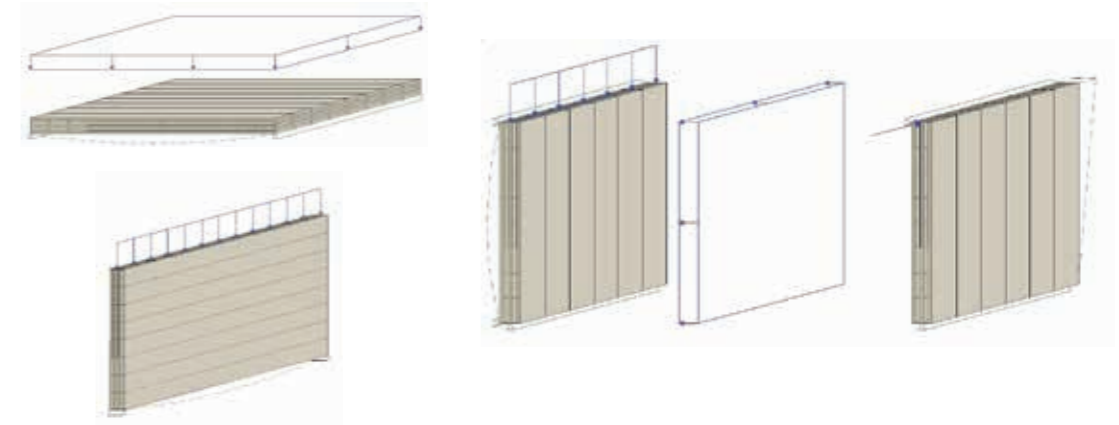
Wood has an extremely high mechanical strength – above all in relation to its own weight. It is as stable as steel and as pressure-resistant as concrete. But it is much more lightweight, which comes with benefits during planning and construction.

7%

fewer lorry journeys

Thanks to the high level of prefabrication, it is also easier to transport the cross-laminated timber modules. Improved planning capacity enables transport to be reduced to only what is necessary, cutting harmful emissions in the process.

Possible uses for modern wood construction systems



Whether communal construction projects, micro-apartments, student dormitories, multi-generation homes, commercial structures, office buildings, single-family homes, hotels or solid timber garages, our CLT is the ideal material for any building project.

You can use CLT in the following components:

EXTERNAL WALLS INTERMEDIATE CEILINGS
LOAD-BEARING INTERNAL WALLS PLAT-
FORMS SHEAR WALLS APARTMENT PARTI-
TION WALLS NON-LOAD-BEARING INTER-
NAL WALLS APARTMENT PARTITION WALLS
BUILDING PARTITION WALLS STAIRWELL
WALLS ELEVATOR SHAFTS APARTMENT
PARTITION CEILINGS CEILINGS INTERMEDIA-
TE CEILINGS HYBRID CEILINGS MADE OF
CLT AND CLASSIC JOISTS BALCONIES
ROOFS PROTRUDING COMPONENTS
FLAT ROOFS STEEP ROOFS
PROTRUDING ROOF ELEMENTS
CANOPIES SPECIAL COMPONENTS

Sound insulation

On account of their mass, CLT elements possess especially good sound insulation properties. The bending resistance, optimised by the cross-wise gluing, additionally reinforces the sound insulation effect. With weaker wall constructions, the multi-layered structure reinforces existing positive sound insulation properties.

The required impact protection in accordance with DIN 4109 is minimised by decoupling the noise input on the upper surface of the ceiling from the bottom surface. Thanks to a combination of screeds, impact insulation and ceiling cladding on the bottom, CLT elements achieve a very high level of impact protection. Elastic bearings are used to minimise sound transmission in connecting areas. In addition, special fastenings are used for the ceiling elements, further improving sound insulation properties.

Fire Protection

HBS cross-laminated timber elements have a fire resistance of at least 30 minutes. By expanding the component thickness or using corresponding, effective fire protection cladding, HBS cross-laminated timber elements can also achieve a fire resistance of 60 or 90 minutes. Wood possesses a useful property that forms a protective carbon layer around the component in the event of a fire. This protective carbon layer reduces complete combustion and therefore also premature collapse of the components or the building. The cross-section remaining after 30, 60 or 90 minutes bears the load, leaving plenty of time for people to leave the building in the event of a fire.

HBS cross-laminated timber elements are assigned to construction material class B2 in accordance with DIN 4102-1 or fire behaviour class D-s2, d0 in line with EN 13501-1 according to their general technical approval.

Heat protection

Energy saving laws (ENEV) and rising energy costs are constantly driving developers to look for better construction materials. Cross-laminated timber elements from HBS meet all the requirements of modern construction materials thanks to their low heat conductivity ($\lambda=0.13 \text{ W/mK}$) and high specific heat capacity ($c\sim 2.10 \text{ kJ/kgK}$).



Quality standards

Material testing is performed in our in-house HBS test laboratory on every production day. In-house production control refers to the continuous monitoring of production by the manufacturer, with the aim of ensuring that the building products they have manufactured meet the requirements of the general technical approval.

The wood type processed – spruce in our case – hereby undergoes a delamination test in connection with the planned adhesive. The aim of the testing is to compare practical building climate-related scenarios with a delamination test using the behaviour of the specific wood type.

Simply put, a sample of CLT is artificially aged within a short time, separated at the adhesive joint and the remaining adhesive residue documented.

As part of a separate test procedure, the solid structural timber used also undergoes a four-point bending test at the finger joint in order to test the rolling shear strength.

The test process is rounded off by a check for size stability, visual inspection and moisture measurement of each sample as well as recording in our database.



*Quality is never an accident;
it is always the result of intelligent efforts.*

John Ruskin

Timber frame construction

The ideal addition for your construction project

Along with our CLT solid timber solutions, we offer you both internal and external walls in the form of timber frame construction. The timber frame construction method can be used to implement all kinds of structural requirements, utilisation concepts and requests from planners and developers as needed.

The timber frame construction method involves a frame consisting of solid timber (usually structural solid timber) forming an internal skeleton of stands, thresholds and plates with cladding on both sides, similar to a modern timber frame house.

When choosing the board material, we comply with the client's project specifications. The internal cavities, also referred to as compartments, are filled out for heat insulation and sound insulation purposes on the construction site using wood fibres, mineral wool or cellulose.

Your wall elements are manufactured in dry form with maximum precision in our production halls and clad with wooden boards as desired, meaning all that is left to do on the construction site is to connect the wall elements together.



We can also provide fire protection cladding, execute soundproofing measures and attach plasterboard or gypsum fibreboards for you. Timber frame walls are additionally ideal for use as front-mounted sanitary fixtures in combination with our CLT walls.

The remaining grid dimensions of 62.5 cm for the axis distance of the vertical timber frames enables high potential savings with regard to the building materials used during implementation.

When it comes to wall thickness, we follow your wishes along with the structural specifications. This is a cost-effective way to implement non-load-bearing internal walls. Compared to a brick wall, your rooms will be around up to 15 percent bigger with the same external building dimensions.

KVH[®] solid structural timber



In the ante group, state-of-the-art KVH[®] (solid structural timber) is manufactured from spruce, pine and Douglas fir. Due to its defined quality and dimensional stability, KVH[®] has become the indispensable material for modern timber construction. It is suitable for all applications in modern timber construction. Due to our data radio-supported production and storage concept, the short-term realization of picked goods possible.

Production begins with careful technical drying of core-separated squared timber to a wood moisture content of 15% (+/- 3%). This corresponds to the wood moisture content to be expected during the planned use, so that major shrinkage deformations caused by the drying of the wood in the building are excluded.

KVH[®] Facts

- Thickness: 40 - 160 mm - Height: up to 280 mm - Length: bis zu 16,5 m
- Production output up to 50.000 m³ / Jahr (HBS) (entire ante-Group: 400.000 m³)
- Best quality due to mechanical sorting and technical drying
- KVH[®] is planed and chamfered on all sides



Exceeding the standard

Modern timber construction requires precisely dimensioned, kiln-dried solid timber products with good size stability. Changes to production technology in carpentry operations using multiple CNC (computer numerical control)-controlled timber machining systems require a clearly defined material for a smooth production process.

The above requirements of solid timber products are sometimes reflected in stricter supervisory regulations. The requirements set out in the agreement on KVH® (structural solid timber) far exceed these supervisory requirements, as will be shown below.



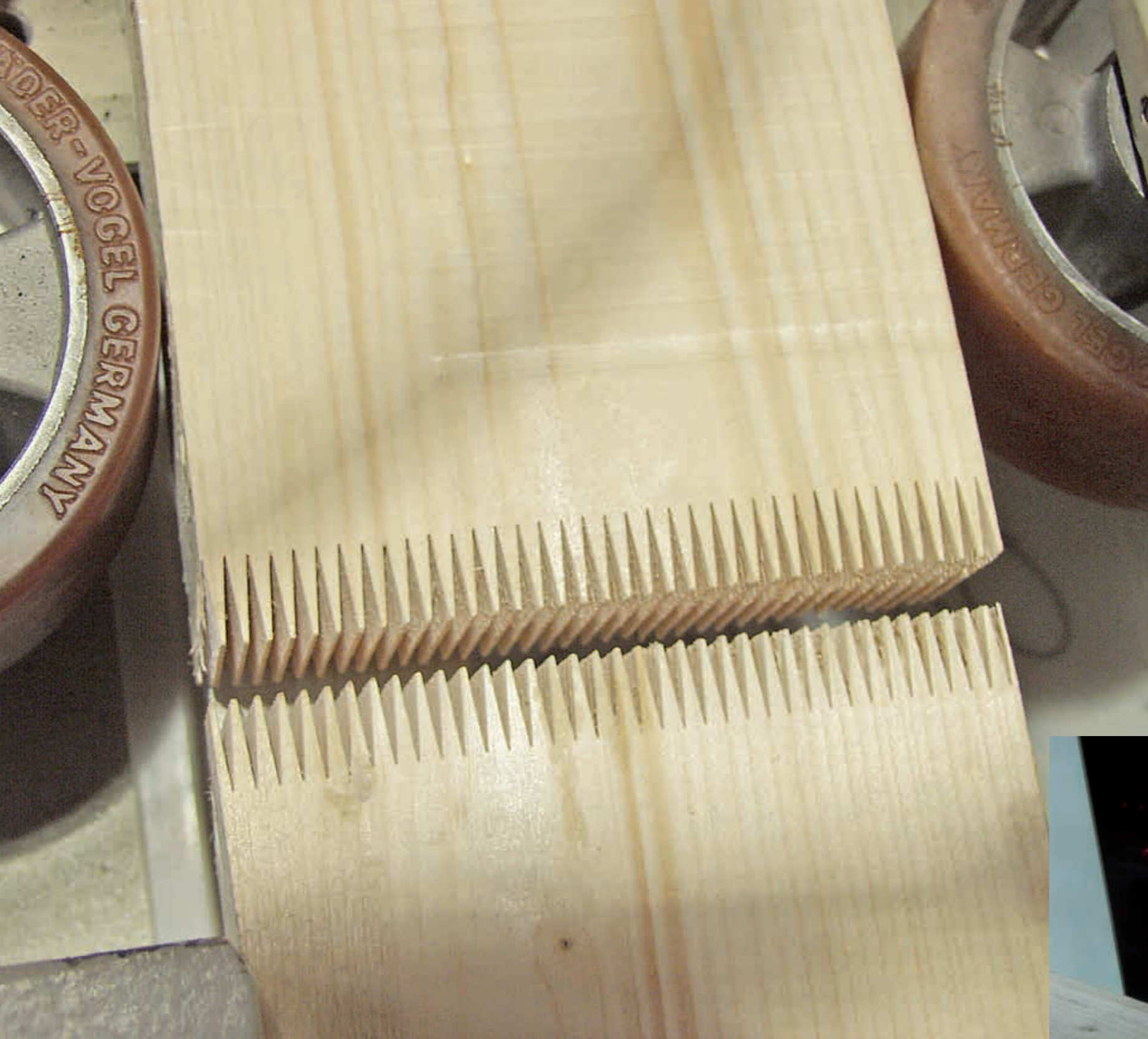
Technological advantage

The development of KVH® (structural solid timber) provides a precise material, which is gently kiln-dried, stable in size, dimensionally accurate, planed and available ex stock in many sizes and lengths. KVH® is a registered trademark. Quality controls on KVH® (structural solid timber) during production are performed in line with the strict rules of the KVH® quality surveillance organisation, with businesses also monitored externally by independent inspection bodies. The surveillance conditions of the quality surveillance organisation are set out in an agreement with Holzbau Deutschland (Holzbau Deutschland - Bund Deutscher Zimmermeister [Timber Construction Germany - Association of German Master Carpenters]).



Solid timber sorted visually or mechanically by strength, kiln-dried and planed with defined size stability. Usually, KVH® is finger-jointed, and is available up to a length of 16.5 m from us.

KVH® meets the requirements set out in DIN EN 15497 (for finger-jointed KVH®) and the DIN EN 14081-1 (for non-finger-jointed solid timber). Furthermore, compliance with additional requirements from the agreement on structural solid timber is checked by in-house and external surveillance bodies



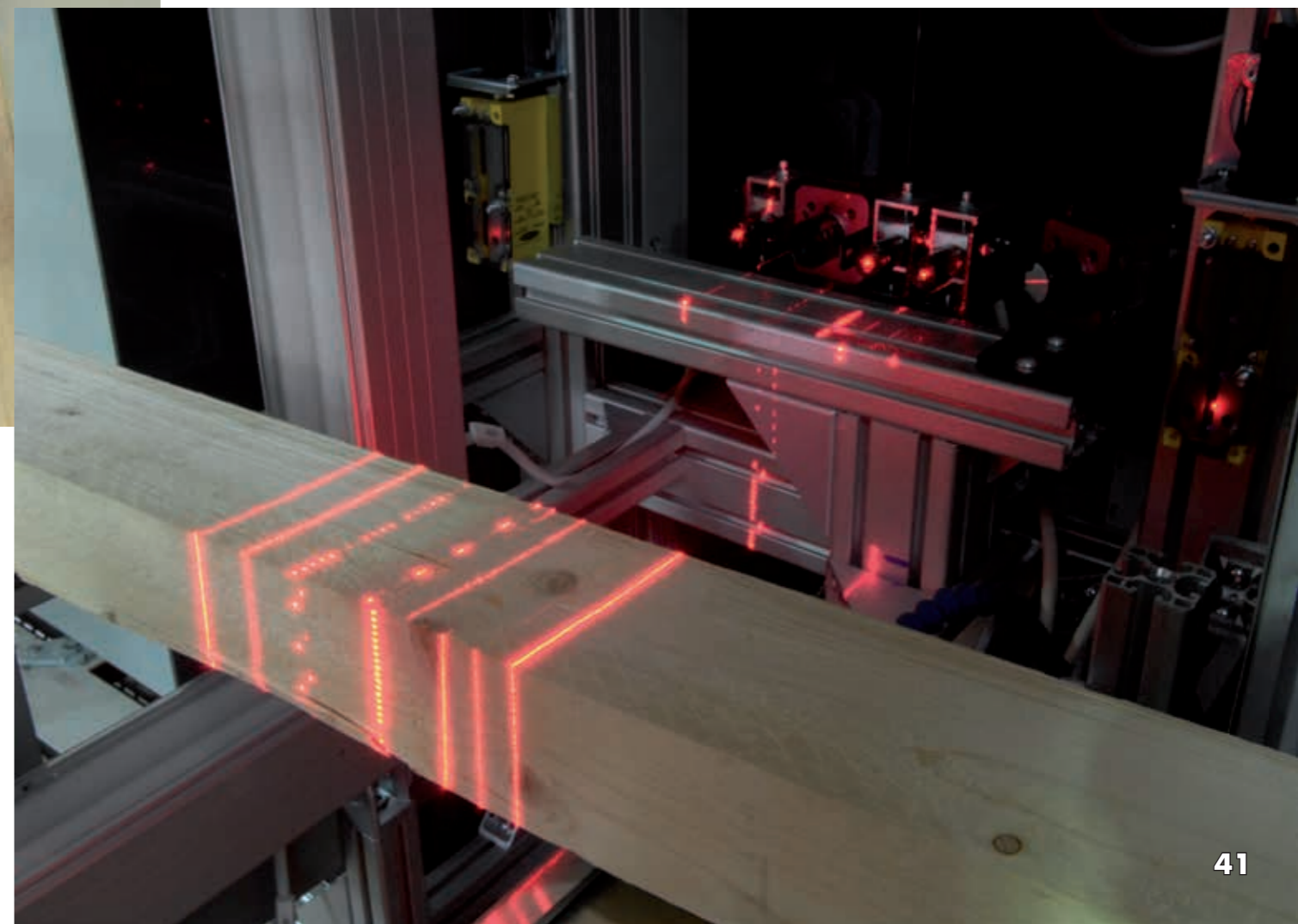
Production and technical properties

KVH® (structural solid timber) is made into raw timber rafters from softwood in the spruce, pine and Douglas fir wood types on state-of-the-art profile cutting machines in our ante sawmill in Rottleberode. The sawmill by-products collected such as bark, wood chips and shavings are used entirely for energy production.

After drying in fully automated, computer-controlled kilns, the wood is brought to our site in Berga, 9 km away. Here, any natural growth imperfections that impede the timber's strength are cut out.

The raw timber rafters created in this way are connected together at the ends using a „finger-jointed“ force-locking connection to form virtually endlessly long strands. After finger-jointing (a process that can be skipped if desired depending on the length), the wood is cut to size and planed precisely. Curing and storage takes place in our air-conditioned production plant to ensure that the wood is delivered dry and in the right size. Ongoing quality controls (in-house monitoring and external monitoring by independent institutes) accompanies every step of production across the group.

Source: Surveillance organisation, KVH Konstruktionsvollholz e.V. (Brochure „Technical Information KVH® (Finger-jointed solid timber) Duobalken®, Triobalken® (Glued solid timber))



Competence Center

Roof, ceiling and wall constructions from the HBS timber machining centre

Of course, we will also be happy to supply a suitable roof structure or other timber structures you need with your order – contract joining with maximum efficiency for our customers.

In our two HBS timber machining centres in Berga and Allendorf/(Eder) - Somplar, we manufacture all the components needed for your building project on the state-of-the-art trimming systems.

On our CNC trimming machines, wall timber, ceiling beams and all timber elements of the roof structure can be trimmed with a maximum cross-section of 20x45 cm and maximum length of 15.00 m. Standard carpentry joints, from simple saw cuts to embellished studs, can easily be produced. Please enquire with us for other cross-sections and lengths, along with industrial timber construction.

Large-scale CLT elements can also be manufactured quickly and precisely in line with your specifications thanks to our three corresponding trimming systems. According to your design wishes, the CLT boards can be processed square, round or in other shapes that you define freely. Drilling, milling, cutting – we give you freedom for your timber construction project! The high level of prefabrication in our plant enables a smooth process on the construction site, regardless of the weather.

With component and size lists as well as the associated assembly plans enclosed with delivery, you can get started quickly and easily. If desired, you can also receive the beams with pre-tacked roofing felt. This not only saves you time and workforce on the construction site, but also meets the requirements set out by DIN standards.

According to the project, we deliver the planked wood to your construction site sorted and marked with component numbers.



We take responsibility for your planning

The plans provided by the architect or structural engineer are used as the basis for planning an order. Testing and technical implementation is handled by CAD cutting software from Dietrichs and S&S. The planning records are adapted as needed and after approval, the machine data for our trimming machines is then created.

This procedure ensures an entirely exact, precise cut while facilitating the smooth continuation of the overall project.

Size determination for precise calculations

At the start of a project, you can expect precise dimensions created from CAD planning and associated timber lists for drawing up your offer and making pre-calculations.

Individuality? Our strength!

When it comes to the production of timber components, we offer state-of-the-art workflows that enable us to cater to your personal wishes at any time – from canopies to major timber construction projects. On our butterfly turning tables, we produce timber frame wall elements for you with a very high accuracy, including planked on one side if desired.

This allows us to offer you the production of wall elements with a length of up to 13 m and a height of up to 3.20 m.

Efficient planning for rapid assembly

Your wood is delivered sorted, packed and marked with component numbers. The enclosed packing lists (including component numbers) and assembly plans provide you with an immediate overview and guarantee fast and easy assembly.

Film packaging, colouring and surface protection

We pack the dried structural timber (BSH/KVH®) securely in film and deliver it to your construction site. If desired, we can provide the timber to you impregnated and with the visible elements primed in your desired colour shade.

Our CLT elements, machined in line with your specifications, can be provided with protective film from prominent manufacturers in order to ensure weather and surface protection.

STRUCTURAL ANALYSES

If you do not yet have any structural analyses for your project, we will be happy to calculate this for you and have them inspected by a structural engineer. We will merely charge you the costs for the service.

We are your ideal partner for modern and efficient timber construction.

Experts advising experts

Every successful project starts with good planning. The process along with all the finer project details are agreed at a joint preliminary meeting between you and our project partners. This provides the opportunity to identify open questions and possible risks at an early stage and to optimise the interfaces beforehand.

If you wish to skip this meeting, you can simply submit your plans to us. We will then send you a quick query and a checklist to clarify any open points.

We support the following interfaces: Dietrichs, S&S, sat, dxf, dwg, 3dxf or send us your finished bvn or bvx file.

Documents for our work preparations

We support you with the overall planning of your project. The key specifications for transferring your planning data to our systems smoothly can be found here.



Colours and refinement



Whether intentionally or unintentionally, colours influence our lives, highlight individuality and provide an identity. To that effect, the desired colours of a building project vary greatly depending on the customer.

To optimise your workflow on the construction site and avoid services from being outsourced to external painting companies, we can refine your timber components with a porous glaze or an opaque coat of paint. This can be done to directly provide purlins and roof overhangs with a suitable, final colour.

Both wood stain and wood paint are used to protect the wood. When using wood stain, the wood's natural structure and very special appearance remain intact, while its natural colour is enhanced. An opaque coat of paint prevents the natural wood grain from showing after painting. Wood paint is used for opaque refinement of the wood and is often used in modern buildings in a range of different shades.

To ensure that colours are communicated clearly between architects, tradespeople and developers, we use the RAL colour palette with over 2,500 uniquely defined colours for our professional colour design services.

For post-treatment, you can order the right paint and corresponding paint utensils now. Alternatively, you can choose to only order the materials from us and apply the paint yourself before installation.

Technical information



certificates/ downloads

UMWELT-PRODUKTDEKLARATION
nach ISO 14025 und EN 15804

Deklarationsinhaber: Studiensperholz
Herausgeber: Institut Bauen und Umwelt e.V. (IBU)
Programmhälter: Institut Bauen und Umwelt e.V. (IBU)
Deklarationsnummer: EPD-SHL-20180035-IBG1-DE
Ausstellungsdatum: 15.10.2018
Gültig bis: 31.03.2023

Brettsperrholz
Studiensperholz
Studiengemeinschaft Holzleimbau e.V.

Institut Bauen und Umwelt e.V.

www.ibu-epd.com / https://epd-online.com

The acronym „EPD“ stands for „Environmental Product Declaration“. An EPD is a document depicting the environmentally relevant properties of a specific product in the form of neutral and objective data. As far as possible, this data covers all effects that the product could have on its environment. Ideally, the entire life cycle of the product is taken into account here.

In the construction trade, EPDs provide specialists such as architects and planners with an essential basis for the integral planning and assessment of buildings. However, EPDs are usually not ideal for comparing products directly, as how eco-friendly, gentle on resources or sustainable a construction product is heavily depends on the (building) context in which it is used.



Download EPD

The ETA can be issued for construction products that are not or not fully covered by a harmonized standard. The ETA serves as the basis for creating a declaration of performance and for providing the product with the CE mark.

OIB
Österreichisches Institut für Bautechnik
Schenkenstraße 4 | T+43 1 533 65 50
1010 Wien | Austria | F+43 1 533 64 23
www.oib.or.at | mail@oib.or.at



Download ETA

Europäische Technische Bewertung	ETA-20/0860 vom 26.04.2022
Allgemeiner Teil	
Technische Bewertungsstelle, die die Europäische Technische Bewertung ausstellt	Österreichisches Institut für Bautechnik (OIB)
Handelsname des Bauprodukts	HBS Brettsperrholz
Produktfamilie, zu der das Bauprodukt gehört	Massive plattenförmige Holzbauelemente für tragende Bauteile in Bauwerken
Hersteller	HBS Berga GmbH & Co. KG Ahornweg 1 06451 Sudharz Deutschland



PEFC

PEFC is a transparent and independent system for ensuring sustainable forestry. The PEFC certification is therefore a kind of global „Forest TÜV“. Wood and paper products with the PEFC seal come from ecologically, economically and socially sustainable forestry.



Download PEFC

HBS BERGA
www.hbs-berga.de

Nach Auftragserteilung benötigen wir von Ihnen:

- CAD-Daten zum direkten Datenimport: ausschließlich *.dwg (2D) oder *.sat, alternativ *.dwg (3D/DWG) oder *.dxf

IFC muss beinhalten:

- Vollständigkeit aller Bauteile
- Ausschließlich die von uns zu produzierenden Bauteile (Fehlerrückmeldung bei großen Datenmengen)
- Fertige Elementierung (optional: Verrechnungsstelle an gemeinsamen / Angebotsanschlägen)
- Fertige Werkpläne inklusive Elementierung als *.pdf zum Abgleich des 3D-Modells mit der IFC
- zeitliche Bemessung wird durch uns nicht geprüft

Nach 3D-CAD-Planung und Erstellen der HSCAD-Maschinen-übergabedatei erhält der Kunde von uns zur Freigabe:

- Bereite Grundrisse als PDF
- 3D-Modell als PDF
- Einzelzeichnungen (ETZ) von jedem Bauteil als PDF
- HBS CAD-Übergabedatei inklusive Verknüpfung
- Masterplan (Netzkouplung)
- 3D-Modell als DWG (je nach gewünscht)

Bitte beachten:

Nach Ihrer schriftlichen Freigabe werden die Daten in die Produktion zur computergesteuerten Fertigung (CAM/UM) übergeben und können nicht mehr geändert werden!

Documents for our work preparations

We support you with the overall planning of your project. The key specifications for transferring your planning data to our systems smoothly can be found here.



Download



**Discover more
from HBS**

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**HBS Berga GmbH & Co. KG
Ahornweg 1
06536 Berga - Südharz - Germany**

**phone: +49 34651 451-0
e-mail: info@hbs-berga.de**