





binderholz **NATURE IN ARCHITECTURE**

WOOD, AN INTELLIGENT RAW MATERIAL

Wood is a fascinating, versatile and intelligent material that plays an important role for us humans in many regards. The young tree in the forest fulfills not only an important role as a provider of well-being, protection and wood as a natural raw material, but also another valuable function: it extracts harmful carbon dioxide CO₂ from the air. It binds carbon C and releases oxygen O₂ into the atmosphere.

Wood has a broad and fascinating range of uses. Whether as a simple wooden spoon, a musical instrument, an object of art, furniture, heat and energy provider or as a high-tech product for solid wood structures, we come into contact with this unique raw material every day. The characteristics of this intelligent material are reflected in its loadbearing capacity, durability, stability and fire resistance, to name but a few. Wood also has a positive influence on the well-being of humans and therefore on their health.

BENEFITS OF SOLID BINDERHOLZ CLT BBS CONSTRUCTION

uncomplicated | fast | dry

The solid CLT BBS construction method combines all of the advantages of solid structures such as sound insulation, fire protection, solid construction, value retention, etc., with the ecological benefits of wood as a sustainable raw material.

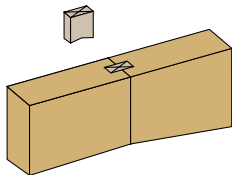
CLT BBS • Living comfort • massive construction • sustainable • fast • wood • 100% value added • ecological • beautiful • natural • soundproofing • high insulation value • film-free construction • nature in architecture • short construction times • 2-axis load removal • memory-effective mass • summer heat protection • visible quality • uncomplicated • fire protection • high level of prefabrication • space gain • diffusion-open • dry • high dimensional stability • low construction strengths • low noise exposure • simple connection details • of stable value • natural product • rainproof after a few days • little waste • wood mass • low temperature flow • warm surface • vapour retarder • no drying times





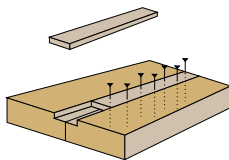
BINDERHOLZ CLT BBS

binderholz CLT BBS is multi-layered solid product made entirely of wood. Thanks to the gluing of longitudinal and transverse layers, the working behaviour of the wood is reduced to a negligible degree. Thus, meeting the standards of modern building material is assured. CLT BBS is a solid prefabricated element made of wood that insulates heat and can simultaneously carry heavy loads. It is fire-resistant and has a good sound absorption. It can be used for fast construction in a dry state and has a positive effect on the well-being of humans. CLT BBS is made from 99.4 % timber and 0.6 % glue - CLT BBS is a monolithic building material. Combining the CLT BBS 125 system format with the large-format panel CLT BBS XL enables builders and designers to work even more flexibly with cross laminated timber CLT BBS and therefore making targeted use of each individual format.



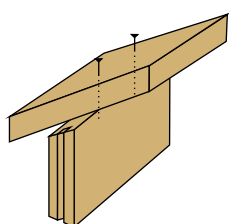
CLT BBS WALL

CLT BBS wall elements safely and solidly fulfil all static, reinforcement, fire prevention, and building physics requirements. CLT BBS constructions meet all heat insulation values in accordance with the current state of the art, using the best technology available, and provide a comfortable and balanced living climate thanks to vapour permeability and the ability to reduce peak room air humidity values, so contributing to a comfortable and balanced room temperature.



CLT BBS CEILING

Building ceilings with CLT BBS does not only have constructive advantages such as the self-supporting and dry construction method, slab effect, dimensionally stable components, adequate fire protection rating and sound-proofing, but also provides finished visible surfaces, as well as a fair dose of living comfort thanks to the positive effect the bulk of wood has on the indoor climate.



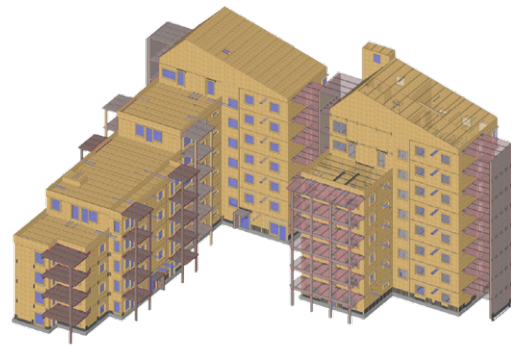
CLT BBS ROOF

CLT BBS can be used for every kind of roof. It quickly provides for rain impermeability and finished visible surfaces on the inside. CLT BBS roof constructions safely and solidly meet all static, fire prevention and sound engineering requirements. As CLT BBS has excellent heat insulation and heat storage properties, it not only contributes to a cosy warm room temperature in winter but also provides optimal protection from an overheating of the building in summer (summer heat protection).



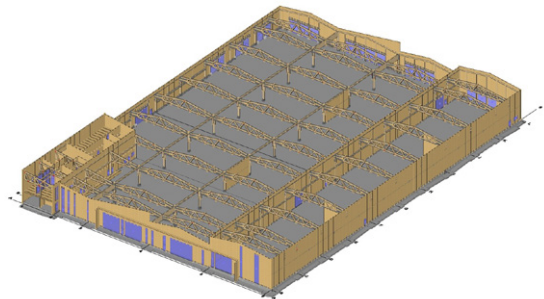
ENGINEERING | TECHNICAL CONSULTING

As a binderholz customer, you benefit from comprehensive advice and sound service. This is ensured by the experienced experts of our high-performance technical department. Our qualified engineers and construction technicians support you competently in all questions of statics and construction, building physics and fire protection. Thanks to their many years of experience as well as intensive research and development work, they are always one step ahead rather than only conforming to the latest state of the art.



OUR SERVICES

- Advice on all binderholz products and applications. Specialising in the field of timber construction products, such as cross laminated timber CLT BBS, glulam or solid wood panels
- Static, structural-physical and fire-related construction solutions and component evaluations, based on many years of experience and intensive research and development work
- Individual project consulting by highly qualified employees in the offices and field service with technical project consulting, if necessary, also on site
- Advice on complementary construction, sealing and connection materials
- Product-specific support with creating lists of services
- 3D planning and work preparation on state-of-the-art CAD-CAM systems
- Optimised planning process through Building Information Modelling BIM
- Design of a wide variety of solid wood buildings



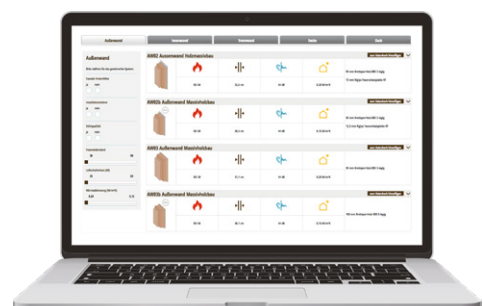
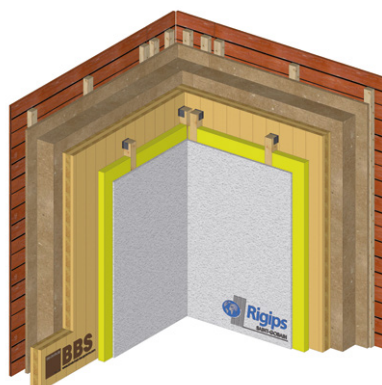
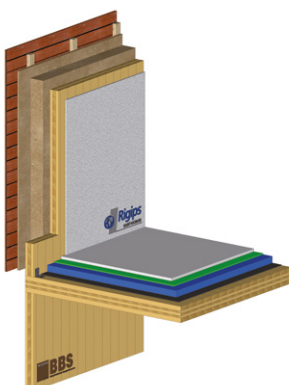
SOLID TIMBER MANUAL

The second edition of the Solid Timber Manual is a detailed reference book for architects, planners, builders as well as other parties executing the work or generally interested in solid wood construction solutions. Thanks to new test results, the optimised online platform as well as many other innovations you will receive the optimal support in solid wood construction with the products of binderholz and Saint-Gobain Rigips Austria. Well-founded test results and comparisons as well as extensive additional information are available and will provide you with the necessary know-how for modern wood constructions of the future.



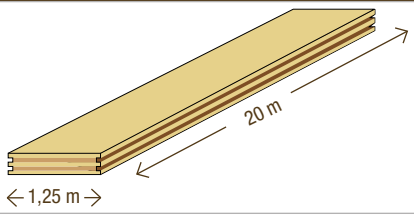
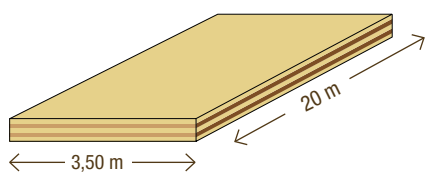
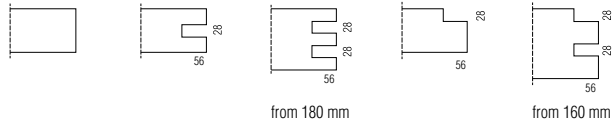
ONLINE DATABASE

The constructions of the Solid Timber Manual are available with 1.200 detailed drawing details in an online database on www.massivholzhandbuch.com/en.





BINDERHOLZ CLT BBS | TECHNICAL DATA

	CLT BBS 125	CLT BBS XL
		
Construction	Cross-bonded board lamellas - 3-, 5-, 7-ply	Cross-bonded board lamellas - 3-, 5-ply
Format	System format	Large format
Width Length	1.25 m up to 20 m	Maximum 3.50 m up to 20 m
Thickness	60 to 280 mm	60 to 240 mm
Wood moisture	10 % +/- 2 % on delivery	
Dead load CLT BBS	450 kg/m³ according to ETA-06/0009	
Lamellas	Thickness 20, 30, 35 or 40 mm coniferous wood, kiln dried, quality graded	
Quality Top layer	Classification according to DIN EN 13017-1	
	AB - one side residential visible quality BC - one side industrial visible quality NH-C - non-visible	AB - one side residential visible quality BC - one side industrial visible quality NH-C - non-visible
Top layer	Visible Top layer lengthwise (DL) Single-ply boards 1.25 m wide Polished or brushed Types of wood: spruce, larch, Swiss pine, Antique (steamed fir, roughly brushed)	Top layer crosswise (DQ) Single-ply boards 1.25 m wide, polished Vertical chamfer at butt joints Type of wood: spruce
	Non-visible Top layer lengthwise (DL)	Top layer lengthwise (DL) Top layer crosswise (DQ) Gaps between the lamellas are permitted
Finger joint	General finger joint	Lamellas individually finger jointed Top layer of visible AB/BC quality without finger joints
Chargeable widths	0.625 1.25 m	2.40 2.60 2.75 2.95 3.20 3.50 m
Machining	CNC processing is possible	
Longitudinal edges		
Gluing	CLT BBS surface and universal tapered finger joints 1K-PUR according to EN 15425 + EN 14080:2013 Narrow side bonding of the top layers MUF according to EN 301, emission class E1	
Shape change	On board level: 0,01 % shape change per % change in moisture Right angle to board level: 0,24 % per % change in moisture	
Heat protection	Heat conductance in accordance to EN ISO 10456: $\lambda_{\text{r}} = 0,12 \text{ W/mK}$ Specific thermal capacity $c = 1600 \text{ J/kgK}$ U-values for structural build ups: please see binderholz Solid Timber Manual	
Noise protection	High noise protection due to solid construction Expert opinion available on request see binderholz Solid Timber Manual	
Fire protection	In accordance to EN 13501: D, s2, d0 Expert opinion for REI 30 - 90 as well as classification reports and ABPs on request Tested burning rate during a fire period of 90 minutes: walls 0.75 mm/min, ceilings 0.90 mm/min	
Diffusion resistance	Without diffusion barrier, with vapour retarder $\mu = 40 - 70$ (depending on the wood moisture and number of the glue joints)	
Air tightness	Airtight from a structure of 3 layers, expert opinion on request	
Usage classes	Approved for usage classes 1 or 2 according to EN 1995-1-1	
Impregnation	on request	Impregnation class 2 for protection from fungal and insect infestation according to DIN 68800, CTB P+ certificate
Approvals	European Technical Approval ETA-06/0009 CE- marking German Building Inspectorate Approval Z-9.1-534 French Approval CSTB Avis Technique 3.3/14-784_V2	



PEFC® PEFC/06-35-20



le futur en construction

BINDERHOLZ CLT BBS | CHARACTERISTIC VALUES

Cross-sectional values for flexibly connected longitudinal layers based on the Gamma method

Layers	Quality top layer		Thickness (mm)	Structure (mm)							Characteristic values					
	CLT BBS 125	CLT BBS XL		S1	S2	S3	S4	S5	S6	S7	L_{eff} (m)	A_{eff} (cm ²)	W_{eff} (cm ³)	I_{eff} (cm ⁴)	i_{eff} (cm)	
3	AB, BC, NH-C	DQ-AB/BC, NH-C	60	20	20	20					2	400	562	1577	1,99	
											4		574	1691	2,06	
											6		576	1714	2,07	
	AB, BC, NH-C	DQ-AB/BC, NH-C	80	20	40	20						2	400	892	3091	2,78
												4		923	3548	2,98
												6		929	3649	3,02
	NH-C	NH-C	90	30	30	30						2	600	1225	4790	2,83
												4		1280	5539	3,04
												6		1291	5707	3,08
	NH-C	NH-C	100	35	30	35						2	700	1512	6469	3,04
												4		1592	7617	3,30
												6		1608	7881	3,36
NH-C	NH-C	120	40	40	40						2	800	2086	9991	3,53	
											4		2249	12613	3,97	
											6		2283	13277	4,07	
5	AB, BC, NH-C	DQ-AB/BC, NH-C	100	20	20	20	20	20				600	2	1273	5458	3,02
													4	1308	6270	3,23
													6	1315	6449	3,28
	AB, BC, NH-C	DQ-AB/BC, NH-C	120	20	30	20	30	20				600	2	1623	7743	3,59
													4	1680	9447	3,97
													6	1691	9851	4,05
	AB, BC, NH-C	DQ-AB/BC, NH-C	140	40	20	20	40	40				1000	2	2748	15078	3,88
													4	2945	19175	4,38
													6	2986	20213	4,50
	AB, BC, NH-C	DQ-AB/BC, NH-C	160	40	20	40	20	40				1200	2	3506	21680	4,25
													4	3721	27580	4,79
													6	3764	29074	4,92
AB, BC, NH-C	DQ-AB/BC, NH-C	180	40	30	40	30	40				1200	2	4061	25338	4,60	
												4	4403	35310	5,42	
												6	4474	38154	5,64	
AB, BC, NH-C	DQ-AB/BC, NH-C	200	40	40	40	40	40				1200	2	4617	29001	4,92	
												4	5094	43666	6,03	
												6	5195	48294	6,34	
AB, BC, NH-C	DQ-AB/BC, NH-C	220	60	30	40	30	60				1600	2	6099	42978	5,18	
												4	6984	65856	6,42	
												6	7186	73412	6,77	
AB, BC, NH-C	DQ-AB/BC, NH-C	240	60	40	40	40	60				1600	2	6708	46343	5,38	
												4	7912	77453	6,96	
												6	8198	89042	7,46	
7	AB, BC, NH-C	---	260	60	20	40	20	40	20	60	2000	2	8396	66601	5,77	
												4	9626	105298	7,26	
												6	9905	118503	7,70	
	AB, BC, NH-C	---	280	60	40	20	40	20	40	60	1600	2	7925	52997	5,76	
												4	9926	102510	8,00	
												6	10439	125183	8,85	

L_{eff} ... Reference length

I_{eff} ... Torque of inertia

Quality of the top layer according to DIN EN 13017-1:

A_{eff} ... Cross-sectional surface net (only longitudinal layers)

i_{eff} ... Radius of inertia

AB ... One side residential visible quality

NH-C ... Non-visible

W_{eff} ... Section modulus

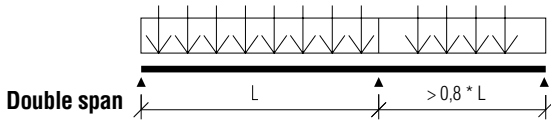
BC ... One side industrial visible quality

DQ ... Top layer crosswise

Kind of loading		EN 1995-1-1 EN 338 N/mm ²	
		CLT BBS 125	CLT BBS XL
E-modulus single layer	$E_{0,mean}$	12,000	12,000
Bending normal to plane	$f_{m,k}$	18	24
Modulus of shear	G_{mean}	690	690
Modulus of rolling shear	$G_{r,mean}$	50	50
Shear from lateral force	$f_{R,k}$	1	1
Pressure in plan	$f_{c,0,k}$	21	21
Pressure normal to plane	$f_{c,90,k}$	2.5	2.5
Tension in plane	$f_{t,0,k}$	10.15	14.5



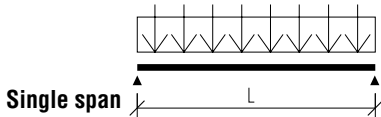
BINDERHOLZ CLT BBS | PRE-DIMENSIONING



Load (kN/m)		Span width																	
		3,5 m		4,0 m			4,5 m			5,0 m			5,5 m			6,0 m			
		Permissible end deflection																	
g _{1,k}	n _k	I/300	CCL2	CCL1	I/300	CCL2	CCL1	I/300	CCL2	CCL1	I/300	CCL2	CCL1	I/300	CCL2	CCL1	I/300	CCL2	CCL1
1,0	1,0	80-3s	100-5s	120-5s	80-3s	100-5s	140	90-3s	120-5s	160	100-3s	140	160	120-3s	140	180	120-3s	160	220
1,0	2,0	80-3s	100-5s	120-5s	90-3s	100-5s	140	90-3s	120-5s	160	100-3s	140	160	120-3s	140	180	140	160	220
1,0	3,0	90-3s	100-5s	120-5s	90-3s	100-5s	140	100-3s	120-5s	160	120-3s	140	160	140	140	180	140	160	220
1,0	4,0	90-3s	100-5s	120-5s	100-3s	120-5s	140	120-3s	140	160	140	140	160	140	140	180	160	160	220
2,0	1,0	80-3s	100-5s	140	90-3s	120-5s	140	100-3s	140	160	120-3s	160	180	120-3s	160	180	140	160	220
2,0	2,0	80-3s	100-5s	140	90-3s	120-5s	140	100-3s	140	160	120-3s	160	180	140	160	180	140	180	220
2,0	3,0	90-3s	100-5s	140	100-3s	120-5s	140	120-3s	140	160	120-3s	160	180	140	160	180	160	180	220
2,0	4,0	90-3s	100-5s	140	120-3s	120-5s	140	120-3s	140	160	140	160	180	160	160	180	160	180	220
3,0	2,0	90-3s	120-5s	140	100-3s	120-5s	160	120-3s	140	160	140	160	180	140	160	200	160	180	220
3,0	3,0	90-3s	120-5s	140	120-3s	120-5s	160	120-3s	140	160	140	160	180	160	160	200	160	180	220
3,0	4,0	100-3s	120-5s	140	120-3s	140	160	140	140	160	140	160	180	160	160	200	180	180	220
3,0	5,0	100-3s	120-5s	140	120-3s	140	160	140	140	160	160	160	180	160	180	200	200	200	220

3s ... 3 layers | 5s ... 5 layers

R30 R60 R90



Load (kN/m)		Span width																	
		3,5 m		4,0 m			4,5 m			5,0 m			5,5 m			6,0 m			
		Permissible end deflection																	
g _{1,k}	n _k	I/300	CCL2	CCL1	I/300	CCL2	CCL1	I/300	CCL2	CCL1	I/300	CCL2	CCL1	I/300	CCL2	CCL1	I/300	CCL2	CCL1
1,0	1,0	90	100-5s	140	90	120-5s	160	120-3s	120-5s	160	120-3s	140	180	140	140	180	160	160	220
1,0	2,0	90	100-5s	140	100-3s	120-5s	160	120-3s	140	160	140	140	180	140	140	180	160	160	220
1,0	3,0	100-3s	100-5s	140	120-3s	120-5s	160	120-3s	140	160	140	140	180	160	160	180	160	160	220
1,0	4,0	100-3s	120-5s	140	120-3s	140	160	140	140	160	160	160	180	160	160	180	180	180	220
2,0	1,0	100-3s	120-5s	140	120-3s	120-5s	160	140	140	160	140	160	180	160	180	220	180	200	240
2,0	2,0	100-3s	120-5s	140	120-3s	140	160	140	140	160	160	160	180	160	180	220	180	200	240
2,0	3,0	100-3s	120-5s	140	120-3s	140	160	140	140	160	160	160	180	180	180	220	200	200	240
2,0	4,0	120-3s	120-5s	140	140	140	160	140	140	160	160	160	180	180	180	220	200	200	240
3,0	2,0	120-3s	120-5s	140	140	140	160	140	140	180	160	160	200	180	180	240	220	220	240
3,0	3,0	120-3s	140	140	140	140	160	160	160	180	180	180	200	200	200	240	220	220	240
3,0	4,0	120-3s	140	140	140	140	160	160	160	180	180	180	200	200	200	240	220	220	240
3,0	5,0	120-3s	140	140	140	140	160	160	160	180	180	180	200	200	200	240	220	220	240

Requirements:

Usage class UCL 1 (interior spaces $k_{def} = 0.8$)

Permanent load g_k : permanent structural load without dead load of CLT BBS (already included in the calculation)

Live load n_k : categories A and B (residential and office spaces: $\psi_0 = 0,7$ $\psi_1 = 0,5$ $\psi_2 = 0,3$ medium load duration, $k_{mod} = 0.8$)

Fire rating according to EN 1995-1-2 and expert opinion IBS-319072401-1 (burning rate for ceilings $\beta_n = 0.9$ mm/min)

Design of the ceiling thickness as to the serviceability limit states:

I/300: serviceability of the deflection according to Eurocode 5 Table 7.2

Vibration requirements subdivided by CCL 1 and CCL 2:

CCL2 (Ceiling class 2) - Ceilings within one utilisation unit
- Ceilings in single-family homes with normal use

CCL1 (Ceiling class 1) - Ceilings between different utilisation units (also continuous ceilings)
- Use as housing separation ceilings in multi-family dwellings
- Ceilings in offices with PC use or meeting rooms
- Corridors with short span widths

Cross-sectional values:

Calculation of CLT BBS cross-sections according to the Gamma method. For continuous beams $I_{eff} = 4/5 * I$

These tables may be used for pre-dimensioning of CLT BBS and do not replace static calculations. The characteristic loads are uniformly distributed loads.

BINDERHOLZ CLT BBS | GENERAL INFORMATION

PACKAGING | LOADING | TRANSPORT | ASSEMBLY

CLT BBS 125

CLT BBS 125 elements are delivered in foil-wrapped packages. The size of the package depends on the delivery sequence and the maximum permissible weight per package. Visible-quality ceiling elements are delivered face down, except of the panel at the very bottom, to ensure the visible surface is protected from dirt and damage. CLT BBS wall elements and CLT BBS 125 ready-made elements are packaged face up.



CLT BBS XL

CLT BBS XL elements are laid flat for transportation.

Country-specific limitations applicable to transporting elements wider than 2.5 m or 3 m and a height exceeding 2.95 m need to be cleared individually with the shipping department. All goods transports must be protected from the elements.



Railway loading

Long-distance transport of cross laminated timber CLT BBS elements by rail can be an attractive alternative to transportation by truck, because it is environmentally friendly, CO₂-saving and can move large quantities entirely without traffic jams.



Container loading

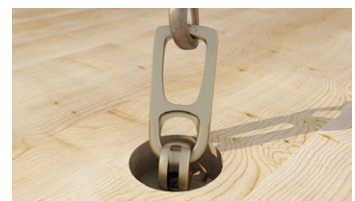
Containers can be loaded in an ideal way by means of special loading equipment. For further details please contact our sales department.



Lifting systems

On request, we can implement assembly loops and Würth inserted screws starting at a strength of 100 mm and ready for mounting into the Assy lifting system, or a loop lifting system with a blind hole and bar dowel.

In the same way, through-hole and blind hole bores can be made for alternative lifting systems, such as e.g. for the Pitzl Power Clamp or similar.



CNC processing

CLT BBS is processed using automatic profiling and CNC-controlled joinery machines. These machines are equipped with tools for processing base construction materials.



Hilti fire foreclosures

Existing fire protection solutions for Hilti cables and pipes in combination with the wood constructions from binderholz cross laminated timber CLT BBS have been proven to guarantee safe insulation against fire, smoke and temperature. binderholz and Hilti have carried out extensive fire resistance tests on CLT BBS wall and ceiling elements. Please contact our sales representatives for details.



BINDERHOLZ CLT BBS | SURFACES

Visible residential quality AB

Visible quality is usually applied in residential, school and office spaces. The top layer is made of spruce, larch, Swiss pine or Antique and is, as an option, either sanded on one side or brushed.



Visible industrial quality BC

This quality is intended for use in commercial and industrial buildings. It is provided as a standard in spruce with visible industrial quality on one face and, as an option, either sanded or brushed.



Non-visible quality C

Non-visible quality is used mainly for construction elements that will be covered with, for example, plasterboard at a later stage. Lamellas are sorted by quality and dried by technical means. The CLT BBS elements do not have to meet specific visual requirements. Discolouration and different types of wood are permissible.

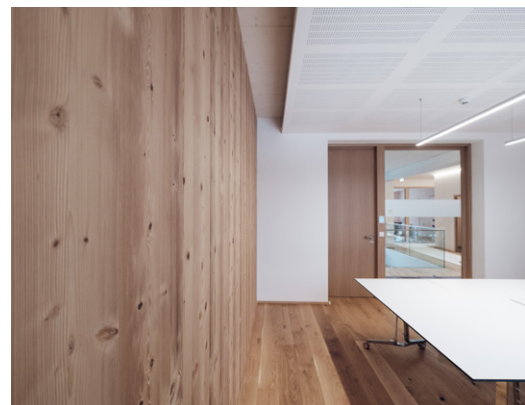


Special processing

Brushed surface

Antique surface - brushed and damped

Impregnation against wood-destroying fungi and insects



BINDERHOLZ CLT BBS | TOP LAYER SORTING

Surface quality CLT BBS*			
Features	Visible residential AB	Visible industrial BC	Non-visible C
Branches	Healthy, firmly grown-together branches: Permitted Black branches: Permitted in singular cases	permitted	permitted
Compression wood	permitted	permitted	permitted
Dowels & corrected resin pockets	permitted	permitted	permitted
Appearance	balanced	no requirements	no requirements
Resin pockets	Sporadically up to 3 mm x 50 mm permitted	permitted	permitted
Insect infestation	not permitted	not permitted	sporadically permitted
Pith	sporadically permitted	permitted	permitted
Quality of the surface finish	Small sporadic flaws permitted, e.g., small tears caused by wood plane	Small sporadic flaws permitted, e.g., small tears caused by wood plane	Flaws permitted
Ingrown bark	sporadically permitted	sporadically permitted	permitted
Cracking	sporadic surface cracking permitted	sporadically permitted	permitted
Discolouration	Light discolouration permitted	permitted	permitted
Bonding	Singular open joints up to max. 1 mm are permitted	Occasional open joints up to max. 2 mm are permitted	Open joints up to max. 4 mm are permitted
Forest edge	not permitted	not permitted	permitted

* Based on DIN EN 13017-1:2000-01 and in compliance with the strength sorting EN 14081-1 (S10)

The change in moisture content and the effect it has on the visual appearance takes place over three stages:

Production: Cross-laminating the kiln-dried lamellas (wood moisture content 12 % +/- 2 %) reduces the natural shrinking and swelling of CLT BBS to a minimum.

Shell construction and assembly: CLT BBS is subject to the natural seasonal climate changes during the shell construction and assembly period. Changes in the moisture content on account of prevailing climatic conditions are therefore possible.

Building use: After a period of up to three heating seasons the mean moisture content of CLT BBS stabilises at around 8 - 10%. These changes in moisture content can lead to optical changes such as cracks and gaps in CLT BBS with visible quality surfaces. These have no influence on the static properties of CLT BBS.

Even the greatest care during production and minimum changes in moisture content cannot completely rule out the appearance of cracks and gaps. Coatings applied to visible quality surfaces can enhance their appearance.

Thicker outer layers in CLT BBS have a positive effect on the load-bearing capacity; however, it is also subject to greater swelling and shrinkage and therefore to greater crack and/or gap formation.

For our **CLT BBS in visible residential quality AB**, we have used the **tried and tested double-length layer** for many years. It always consists of a 20 mm thick visible top layer glued to a second longitudinal layer with a thickness of at least 20 mm. In this way we can combine the best visible quality and a high dimensional stability of the top layer with a strong load-bearing capacity of the element. The true quality of cross laminated timber in visible quality does not become apparent until 1 to 3 heating seasons have passed.

Use our experience to your advantage.



BINDERHOLZ CLT BBS | CONSTRUCTION SOLUTIONS

Single-family house
Residential Buildings
Public | Municipal
Commercial | Industrial
Tourism

For more information see www.binderholz.com/en under
Construction solutions | Top references



Private semi-detached house Mut zur Lücke, Innsbruck | Austria



METRO ZERO 1, St. Pölten | Austria



binderholz TimberBrain Office Building, Hallein | Austria



'Quellhof' Private Equestrian Centre, Wiesing | Austria



The GSK - Carbon Neutral Laboratory, Nottingham | Great Britain



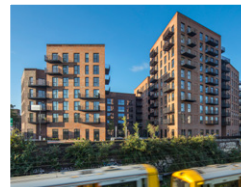
binderholz Lakehouse apartment block, Lieksa | Finland



HTK Kuchl College of Wood Technology | Austria



Ekoflin family home, Schiedam | Netherlands



Dalston Lane, London | Great Britain



Hotel Sand, Kastelbell in Tscharns | Italy

BINDERHOLZ CLT BBS | LOCATIONS



Binderholz Bausysteme GmbH

Sale of CLT BBS & construction solutions, Hallein | A



Binderholz Unternberg GmbH

CLT BBS plant, Unternberg | A



Binderholz Burgbernheim GmbH

CLT BBS plant, Burgbernheim | D



Binderholz Bausysteme GmbH

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