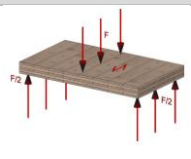
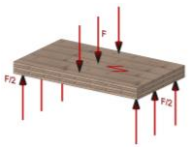
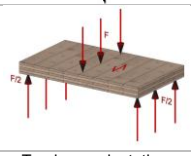
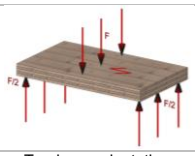
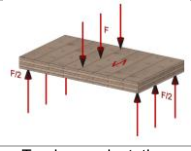
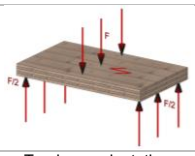
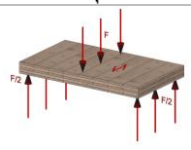
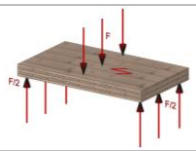
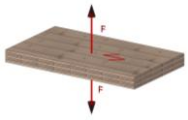
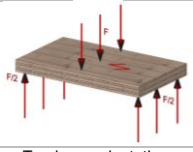
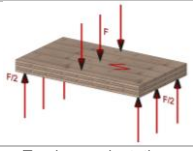
binderholz

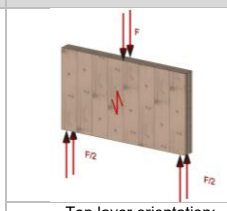
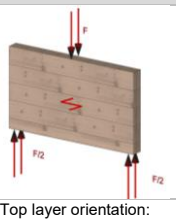
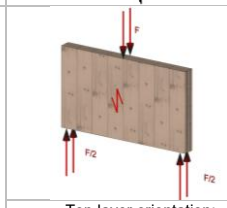
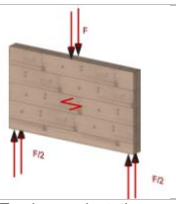
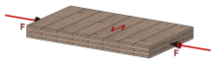
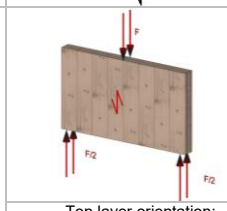
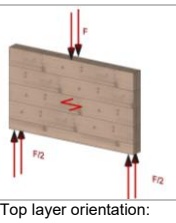
Declaration of performance for the construction product (DOP)
Binderholz CLT BBS system-format

DOP-BHUN-31-1	
Unique identification code of the product type	BBS SYS binderholz CLT „BBS system-format“ according to ETA-06/0009
Intended use	CLT, multi-ply timber construction elements for wall, ceiling, roof and special construction elements for load-bearing purposes
Manufacturer	Binderholz Bausysteme GmbH · timber industry Zillertalstraße 39 · A-6263 Fügen Binderholz Unternberg GmbH · Cross laminated timber plant Stranach 26 · A-5585 Unternberg
Agent	NPD
System for assessing and inspecting constancy of performance	System 1
European Assessment Document (EAD) European Technical Assessment (ETA) Technical Assessment Office Notified body Certification of constancy of performance certificate no.	EAD 130005-00-0304 ETA 06/0009 Deutsches Institut für Bautechnik (DIBt) Holzforschung Austria 1359 1359-CPR-0894

Essential characteristics	Declared performance
Format	BBS system-format
Number of layers	3 ≤ n ≤ 15 (max. 3 with fibres running in parallel)
Thickness range	51 – 350mm
Width	≤ 1,26m
Length	≤ 5m / with universal fingerjoint according to EN 14080 up to ≤ 24m
Adhesives used for surface bonding and finger-jointing Adhesive joint integrity as delamination test according to EN 14080, Annex C, Method B	Typ 1 according to EN 15425 can be no-load-bearing narrow side bonded: Hotmelt, PVAC, MUF Delamination fulfilled

Essential characteristics	Declared performance
Other mechanical impacts	
Dimensional stability as Tolerances according to EN 336 for thickness and width	Length tolerance: +/- 2mm Width tolerance: +/- 2mm Thickness tolerance: +/- 1mm
Dimensional stability as moisture in delivery condition	11% +/- 2%
Durability class of the untreated wood	5
Durability of wood Use classes according to EN 1995-1-1	1 or 2
Coefficient of thermal expansion according to EN 1995-1-1	α = 5 x 10-6/K

Mechanical strength and stability		
Panel loads	**Declared performance**	**Draft**
Bending strength Characteristic bending strength parallel to the grain direction of the top layer $f_{m,k}$ Characteristic bending strength perpendicular to the grain direction of the top layer $f_{m,k}$	18 N/mm² 24 N/mm²	 Top layer orientation:  Top layer orientation:
Shear modulus Parallel to the grain direction of the top layer $G_{0,mean}$ Vertical to the grain direction of the top layer $G_{0,mean}$	690 N/mm² 690 N/mm²	 Top layer orientation:  Top layer orientation:
Rolling shear modul Parallel to the grain direction of the top layer $G_{90,90,mean}$ Vertical to the grain direction of the top layer $G_{90,90,mean}$	50 N/mm² 50 N/mm²	 Top layer orientation:  Top layer orientation:
Modulus of elasticity Parallel to the grain direction of the top layer $E_{0,mean}$ Vertical to the grain direction of the top layer $E_{0,mean}$	12.000 N/mm² 12.000 N/mm²	 Top layer orientation:  Top layer orientation:
Tensile strength Vertical to the panel plane $f_{t,90,k}$	0,4 N/mm²	 Top layer orientation:
Compression strength Vertical to the panel plane $f_{c,90,k}$	2,5 N/mm²	 Top layer orientation:
Shear strength Parallel to the grain direction $f_{v,k}$	4,0 N/mm²	 Top layer orientation:
Rolling shear strength $f_{v,90,90,k}$	1,0 N/mm²	 Top layer orientation:

Mechanical strength and stability		
Slab loads	**Declared performance**	**Draft**
Bending strength Parallel to the grain direction of the top layer $f_{m,k}$ Vertical to the grain direction of the top layer $f_{m,k}$	18 N/mm² 18 N/mm²	 Top layer orientation:  Top layer orientation:
Modulus of elasticity Parallel to the grain direction of the top layer $G_{90,90,mean}$ Vertical to the grain direction of the top layer $G_{90,90,mean}$	12.000 N/mm² 12.000 N/mm²	 Top layer orientation:  Top layer orientation:
Tensile strength Parallel to the grain direction of the top layer $f_{t,0,k}$ Vertical to the grain direction of the top layer $f_{t,0,k}$	10,15 N/mm² 14,15 N/mm²	 Top layer orientation: Top layer orientation:
Compression strength Global, parallel to the grain direction of the boards $f_{c,0,k}$	21 N/mm²	 Top layer orientation: Top layer orientation:
Shear strength Independent of the load-bearing direction, per adhesive joint $f_{v,K,k}$ (shear flow) Parallel to the grain direction of the boards $f_{v,k}$ (shear stress)	to be calculated according to ETA point 1.4.1	 Top layer orientation:  Top layer orientation:
		$f_{v,k} = \min \begin{cases} 3.5 \\ 8.0 \frac{D_{net}}{D} \\ 2.5 \frac{(n-1)(a^2+b^2)}{6 D b} \end{cases}$ in [N/mm²] where D element thickness (see Annex 1) D_{net} total thickness of longitudinal or cross layers within the element; the smaller value applies n number of layers within the element, adjacent layers with parallel lamellae shall be considered as one layer and a, b width of the boards in the longitudinal or cross layers, where b > a (If a and b is unknown, the minimum value must be applied for b.)
Other characteristics for plate and slab loading	Top / longitudinal layers (running in the grain direction of the top layers) Solid wood according to EN 338:C24 Traverse layers (layers running at right angles to the direction of the fibres in the top layer) Solid wood according to EN 338: C24 Top / longitudinal / traverse layers Solid wood panel according to EN13986 / EN 13353 up to max. 50% of the cross-section Characteristic properties according to ETA-06/0009, tables 1 and 2	

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Essential characteristics	Declared performance				
Fire protection as					
Fire behaviour	Wooden components except floors | Euroclass D-s2, d0				
Fire resistance	assembly situation	ceiling		wall	
		Outer layer	Inner layer up to 25mm	Outer layer	Inner layer up to 25mm
	Burning rate*	0,65 mm/min	1,3 mm/min	0,65 m/min	0,85 m/min
	Burning rate with HB-X surface bonding ≤ 0.70 mm/min				
	Burning rate with HB-XE surface bonding ≤ 0.70 mm/min				
	*Burning rate with HB-S surface bonding, burning of more layers than the top layer Values according to DIBt: aBG approval number Z-9.1-935				
Hygiene, health and environmental protection as					
Content and/or release of hazardous substances as formaldehyde emission	Formaldehyde emission class E1 according to EN 14080; no release of other hazardous substances				
Other hazardous substances	NPD				
Water vapour diffusion resistance as water vapour diffusion resistance number μ of the surface (including joints) according to EN ISO 10456	open to diffusion, vapour-barrier | μ = 40 - 70 (depending on wood moisture and number of glue joints)				

Essential characteristics	Declared performance
Safety and accessibility when used as	
Impact resistance with a soft body	Fulfilled (from 60mm)
Sound insulation as	
Airborne sound insulation according to EN ISO 717-1	NPD
Impact sound insulation according to EN ISO 717-2	NPD
Sound absorption according to EN ISO 11654	NPD
Energy saving and thermal insulation as a	
Thermal conductivity according to EN ISO 10456	0,12 W/mK
Air permeability as air volume flow coefficient C according to EN ISO 12114	NPD
Thermal inertia as specific heat storage capacity c_p according to EN ISO 10456	1600 J/(kg K)

The performance of the product identified above is in conformity with the declared performance. The manufacturer identified above is solely responsible for producing the Declaration of Performance in accordance with Regulation (EU) No. 305/2011.

Unternberg, 13.04.2026

Thomas Aigner
Operations director/Managing director
Signed on behalf of the manufacturing company