

best wood[®]
SCHNEIDER

TIMBER 2024

Accessories



Lifting systems / turning system

SIHGA PICK LIFTING SYSTEM for up to 20,000 load cycles

Minimum wood thickness: with planar lifting ≥ 80 mm, with frontal lifting ≥ 90 mm

Note: The application instructions of the respective manufacturer (e.g. check drill hole) must be observed before lifting the elements using lifting/turning systems.



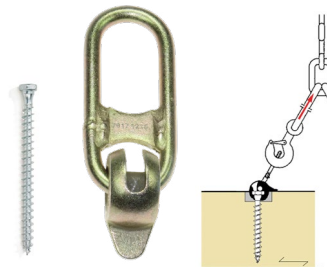
Item no.	Designation	PU	UP
6205SIHGAPICK	2 x Sihga Pick lifting aid in transport case, without drill bit	1 case	case
6205SIHGAPICK-BOHRUNGEN	Drill hole SIHGA PICK	1 pieces	piece

WÜRTH LIFTING SYSTEM

Minimum wood thickness: with planar lifting ≥ 120 mm, with frontal lifting ≥ 160 mm (with locking screw)

The transport anchoring screw is installed countersunk in the element by approx. 10 mm using bit insert AW40.

Note: The application instructions of the respective manufacturer (e.g. check drill hole) must be observed before lifting the elements using lifting/turning systems.



Item no.	Designation	PU	UP
6206TRANSPORTANKER	Transportation anchor	2 pieces	2 pieces
6203SCHRAUBE12x100/60	Transportation anchor screw 12x100/60	50 pcs./pack	pack
6203SCHRAUBE12x120/100	Transportation anchor screw 12x120/100	50 pcs./pack	pack
6203SCHRAUBE12x160/145	Transportation anchor screw 12x160/145	50 pcs./pack	pack
6204BITEINSATZ	Bit insert AW40 mm	1 pieces	piece
6204WÜRTH-BOHRUNGEN	Drill hole Würth lifting systems	1 pieces	piece

Fasteners

X-fix® C

X-fix® C is a two-piece, self-tightening wood-wood connector for compression and tension-proof connection of CLT ceilings and walls. X-fix® C is a wedge-shaped dovetail wood-wood connector. The X-fix® C wedge shape even clamps large-format ceiling panels or wall parts in a self-tightening, form-fitting way. The advantages of X-fix® C: Fast installation, form-fitting connection is ideal for visible surfaces, no panel tighteners required for ceiling connections, and thanks to the wedge shape, X-fix® C even clamps large-format ceiling panels together in a self-tightening way, no metal in the pure wood-wood connection.



Item no.	Designation	PU	UP
6209X-FIX	X-fix® C 96/130/90	1 pieces	piece
6209X-FIX-BOHRUNGEN	Drill hole for X-fix (both sides)	1 pieces	piece

Note: Only with CLT in conjunction with a tongue & groove connection possible

HECO-TOPIX® plus

Full-thread screw with cylinder head, ETA-19/0553 for a cross screw connection at the ceiling element joint creating a static ceiling section. Verification possible via best wood STATICS.

Item no.	Delivery form	PU	UP
6229ZK6/160	6 x 160 mm	100 pcs./pack	pack



Soundproofing

best wood BOUNDSPLITT

best wood BOUNDSPLITT is a chippings binder for manufacturing a flexibly bound chippings filling for improving the soundproofing of wooden ceilings.

best wood BOUNDSPLITT remains flexible after drying, and is therefore acoustically comparable with the best wood CHIPPINGS in the best wood HONEYCOMB. Filling heights of 30 to 120 mm can be realised. Approximately 0.3 kg of binder is needed with dry 5/8 chippings per m² and filling height of 10 mm. The drying time under optimum conditions and dry chippings is approx. 6 days for a filling height of 80 mm. The mixture of chippings binder and chippings can be applied using a screed pump.

best wood BOUNDSPLITT will keep for 12 months. The storage temperature must not fall below 5°C. The processing temperature is 5° C to 35° C.

More information about processing can be found in the technical data sheet at www.schneider-holz.com. Acoustically tested component structures with best wood BOUNDSPLITT can be found in the component database on our web site.

Transportation charges on request.



Item no.	Designation	PU	UP
6220BOUNDSPLITT	BoundSplitt canister	20 kg	kg
6220BOUNDSPLITTIBC	BoundSplitt IBC container	1000 kg	kg

best wood CHIPPINGS

best wood CHIPPINGS consist of a grain made from natural calcium carbonate, which is manufactured using state-of-the-art grinding and drying systems and sieving machines. It is used for putting into the best wood CLT BOX – CEILING FS and as ballast in best wood ceiling elements.



Item no.	Designation	PU	UP
6220SCHUETTUNG	best wood CHIPPINGS bag	25 kg/bag, 40 bags/pallet	Bag
6220SCHUETTUNGBIGBAG	best wood CHIPPINGS Big Bag	1000 kg/Big Bag on pallet	Big Bag

Delivery of best wood CHIPPINGS in loose form in silo vehicle by request.

best wood EASY FILL

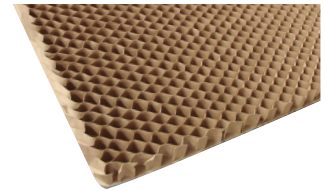
best wood EASY FILL makes easy and quick filling of best wood CHIPPINGS in a predefined quantity into the CLT BOX – CEILING FS possible.



Item no.	Designation	PU	UP
6231EASYFILLKAUF	best wood EASY FILL for buying	1 piece	piece
6231EASYFILLPFAND	best wood EASY FILL deposit	1 piece	piece

best wood HONEYCOMB 30/60

HONEYCOMB is a honeycomb board made from cardboard which prevents the best wood CHIPPINGS from moving or shifting. Laying the chippings directly on the honeycomb provides a consistent layer thickness.



Item no.	Designation	PU	UP
6221WABE30	best wood HONEYCOMB 30	1.5 m ² /board, 30 boards/pallet	m ²
6221WABE60	best wood HONEYCOMB 60	1.5 m ² /board, 15 boards/pallet	m ²

Filling quantity of best wood CHIPPINGS in best wood HONEYCOMB 30/60: HONEYCOMB 30 approx. 42 kg/m² | HONEYCOMB 60 approx. 84 kg/m²

SILENT FLOOR EVO insulating mat

SILENT FLOOR EVO is an insulating material made from recycled Latex and foam material. One roll is sufficient for 15 m² and complements the soundproofing perfectly in its structure.



© rothoblaas

Item no.	Thickness	Roll length	Roll width	Roll weight	PU
6225SILENTFLOOR	10 mm	10 m	1.6 m	16.5 kg	15 m ² /roll, 6 rolls/pallet

Fireproofing

Hilti CFS-S ACR fire protection sealing compound

Acrylate-based fire protection sealing compound for sealing element joints with fire protection requirements for the best wood CLT BOX - CEILING FS

Hilti CP 611A/CFS-IS fire protection sealing compound

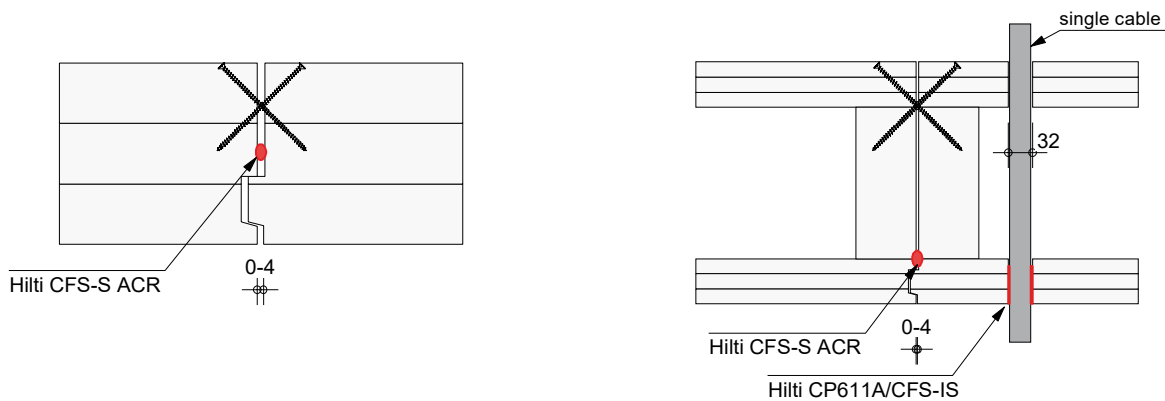
Intumescent fire protection sealing compound for sealing individual cable entries and the Hilti cable sleeve CFS-SL GA in the best wood CLT BOX – CEILING FS



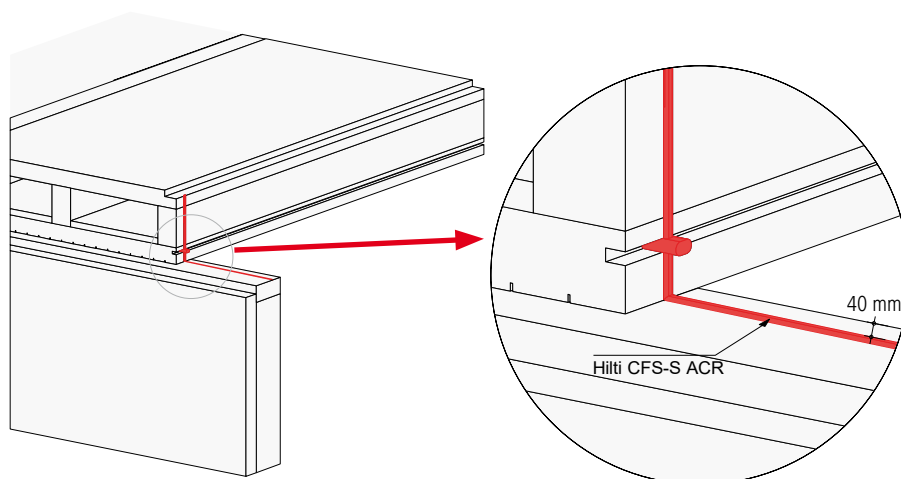
Advice and sale by HILTI

Please reach out to your local Hilti customer service or Hilti sales representative

Example of element joints construction with fire resistance requirement up to F60:



Example support with fire resistance requirement up to F60:



Other element joints constructions, leadthroughs through the element or installations with fire resistance requirements for CLT BOX can be found in ETA-21/0336 and for CLT in ETA-21/0568.

For the planning of the individual versions or details, please note the technical specifications with regard to fasteners and connection distances in ETA-21/0336 and ETA-21/0568.

Vapor barrier and airtight sealing membrane

WETGUARD® 200 SA 390 or 1560 mm

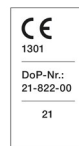
Rain-proof and robust membrane that is self-adhesive over its entire surface for reliable moisture protection of wooden elements during transport, installation and construction time.

Application area

Indoors and outdoors

Advantages

Fleece with non-slip coating and adhesive application over the entire surface. Transparent, robust and abrasion resistant



s_d value	3.5 m
Reaction to fire	E
Outdoor weather exposure	3 months
Watertight	W1
Temperature resistance	-40 °C to +80 °C

Item no.	Roll length	Roll width	Area	Roll weight
6233SIGAWETGUARD390	50 m	390 mm	19.6 m ² /roll	6.2 kg
6233SIGAWETGUARD1560	50 m	1560 mm	78 m ² /roll	24.6 kg

TESCON VANA

Multi-purpose adhesive tape with fleece back

Field of application

Can be used to form a secure and permanent seal on overlaps between foil and fleece membranes (vapor barriers and airtight sealing membranes, roof underlays and wall membranes) and joins between them. It is also suitable for sealing butt joints between wood-based material panels.

Advantages

Long-lasting sealed bonds, indoors and outdoors; with pliable fleece backing; can be torn off by hand; for airtight bonds in accordance with DIN 4108-7, SIA 180 and ÖNorm B8110-2; high initial adhesiveness; extremely high final adhesion; waterproof adhesive.



developed and produced by pro clima

Backing	Special PP fleece
Separating layer	Siliconized paper
Temperature resistance	Long term -40 °C to +90 °C
Processing temperature	From -10 °C
Outdoor weather exposure	6 months

Item no.	Roll length	Roll width	Contents	KG / PU
6102TESCONVANA60	30 m	60 mm	10 rolls/carton	6 kg
			1 roll	0.6 kg
6102TESCONVANA150	30 m	150 mm	2 rolls	3 kg

Lighting systems

incl. operating device

Description

Nowadays the solution in many areas consists of LEDs, whose efficiency is enhanced by intelligent light controls and innovative operating devices. The new, dimmable LED lighting systems for our ceiling and roof systems are high quality, and impress with their timeless design. This guarantees that you will realize long-lasting lighting ideas. Suitable holes drilled in the factory make installation child's play, the lamps just need to be cabled and clipped in place.

■ ■ RECESS MOUNTED LIGHTS

LED 170 round

The lighting systems are coordinated with our best wood GLULAM and CLT ceilings and CLT BOX, and can be supplied ready-drilled with the relevant holes at an additional cost.

Even light distribution over the entire light outlet surface.
Dimmable with a trailing edge dimmer.

The lights are only suitable for indoors and for connecting to safety extra-low voltage.

Item no.	Designation	PU	UP
6222-170RW	LED 170 round white	1 pc.	piece
6222-170RTM	LED 170 round matt titanium	1 pc.	piece
6222-170R-BOHRUNGEN	Drill holes for LED 170	1 pc.	piece

LED 195 square

The lighting systems are coordinated with our best wood GLULAM and CLT ceilings and CLT BOX, and can be supplied ready-drilled with the relevant holes at an additional cost.

Even light distribution over the entire light outlet surface.
Dimmable with a trailing edge dimmer.

The lights are only suitable for indoors and for connecting to safety extra-low voltage.

Item no.	Designation	PU	UP
6222-195QW	LED 195 square white	1 pc.	piece
6222-195QTM	LED 195 square matt titanium	1 pc.	piece
6222-195Q-BOHRUNGEN	Drill holes for LED 195	1 pc.	piece



White

Matt titanium

Wattage [Watt]	11
Connection voltage [Volts]	230
Lamp	SMD LED
Light colour	Warm white
Colour temperature [Kelvin]	Approx. 3000 K
Luminous flux [Lumen]	840 lm
Colour rendering	Ra > 80
Material	Aluminum/PMMA diffusor disk
Operating device (transformer)	Included (packaged separately)
Dimmable	yes
Degree of protection	IP20
Installation depth	55 mm with best wood ceiling systems
External diameter	170 mm



White

Matt titanium

Wattage [Watt]	10
Connection voltage [Volts]	230
Lamp	SMD LED
Light colour	Warm white
Colour temperature [Kelvin]	Approx. 3000 K
Luminous flux [Lumen]	870 lm
Colour rendering	Ra > 80
Material	Aluminum/PMMA diffusor disk
Operating device (transformer)	Included (packaged separately)
Dimmable	yes
Degree of protection	IP20
Installation depth	55 mm with best wood ceiling systems
External diameter	195 mm

LED 90 spot

The lighting systems are coordinated with our best wood GLULAM and CLT ceilings and CLT BOX, and can be supplied ready-drilled with the relevant holes at an additional cost.

The reflector is made from real glass, and the lighting system is dimmable with a trailing edge dimmer.

The lights are only suitable for indoors and for connecting to safety extra-low voltage.

Item no.	Designation	PU	UP
6222-90SPOTW	LED 90 Spot white	1 pc.	piece
6222-90SPOTN	LED 90 Spot nickel brushed	1 pc.	piece
6222-90SPOT-BOHRUNGEN	Drill holes for LED 90 Spot	1 pc.	piece



White



Nickel brushed

Wattage [Watt]	8
Connection voltage [Volts]	230
Lamp	COB LED
Light colour	Warm white
Colour temperature [Kelvin]	Approx. 3000 K
Luminous flux [Lumen]	850 lm
Colour rendering	Ra > 90
Material	Diecast aluminum/real glass reflector
Radiation angle, swivelling	38 degrees
Operating device (transformer)	Included (packed with spot)
Dimmable	yes
Degree of protection	IP40
Installation depth	75 mm with best wood ceiling systems
External diameter	90 mm

LED 90 FireSpot

Even demanding lighting tasks can be solved without problems with the LED 90 FireSpot, thanks to the high light output. Installation in the BS3700TC fire protection box fulfils the requirements for fire protection shielding in a best wood ceiling element with a fire resistance duration of 60 minutes.

The LED 90 FireSpot can only be purchased in combination with a BS3700TC fire protection box.

The lighting systems are coordinated with our best wood GLULAM, CLT and CLT BOX ceiling elements, and can be supplied ready-drilled with the relevant holes at an additional cost.

Item no.	Designation	PU	UP
6222-90FSPOTW-BS3700TC	LED 90 FireSpot, white, including BS3700TC fire protection box	1 pc.	piece
6222-90FSPOTN-BS3700TC	LED 90 FireSpot, nickel brushed, including BS3700TC fire protection box	1 pc.	piece
6222-90FSPOT-BOHRUNGEN	Drill holes for LED 90 FireSpot	1 pc.	piece



White



Nickel brushed

Wattage [Watt]	7
Connection voltage [Volts]	230
Lamp	LED
Light colour	Warm white
Colour temperature [Kelvin]	3000 K
Luminous flux [Lumen]	650 lm
Colour rendering	Ra > 80
Material	Aluminum
Operating device (transformer)	incl.
Dimmable	yes
Degree of protection	IP44
Installation depth	with fire protection box 62 mm
External diameter	90 mm

BS3500TC fire protection box

The BS3700TC is a fire protection box which has been developed for installation in solid wood ceilings and walls, for fire protection shielding up to EI60.

Due to the newly developed and patented f-tronic® TC fastening system with claw, the box can be quickly and easily attached in the solid wood. The intumescent material seals the opening in the event of a fire.



■ ■ SURFACE MOUNTED LIGHTS

The surface mounted lighting systems are tailored to our best wood GLULAM, CLT and CLT BOX ceilings, and can be directly attached to the ceiling. Even light distribution over the entire light outlet surface and the lights are dimmable with a trailing edge dimmer. The lights are only suitable for indoors and for connecting to safety extra-low voltage.

- Very low installation height of just 15 mm
- Elegant design
- Different colour temperatures possible
- Integrated transformer

LED 165 | 217 Standard

Available in colour temperatures of 3000 or 4000 Kelvin.

Item no.	Designation	PU	UP
6226-165STW3K	LED 165 Standard round white 3000 K	1 pc.	piece
6226-165STW4K	LED 165 Standard round white 4000 K	1 pc.	piece
6226-217STW3K	LED 217 Standard round white 3000 K	1 pc.	piece
6226-217STW4K	LED 217 Standard round white 4000 K	1 pc.	piece
6226-165STN3K	LED 165 Standard round nickel brushed 3000 K	1 pc.	piece
6226-165STN4K	LED 165 Standard round nickel brushed 4000 K	1 pc.	piece
6226-217STN3K	LED 217 Standard round nickel brushed 3000 K	1 pc.	piece
6226-217STN4K	LED 217 Standard round nickel brushed 4000 K	1 pc.	piece



Wattage [Watt]	12 (LED 165) or 18 (LED 217)
Connection voltage [Volts]	230
Lamp	SMD LED
Light colour	Warm white - neutral white
Colour temperature [Kelvin]	3000 or 4000 K
Luminous flux [Lumen]	with 3000 K: 1000 or 1550 with 4000 K: 1100 or 1600
Colour rendering	Ra > 80
Material	Aluminum/plastic
Operating device (transformer)	integrated
Dimmable	yes
Degree of protection	IP20
Installation height	15 mm
External diameter	165 mm or 217 mm

LED 165 | 217 Premium

The color temperature with all Premium models are adjustable between 3000, 4000 or 6500 Kelvin.

Item no.	Designation	PU	UP
6226-165PRW	LED 165 Premium round white	1 pc.	piece
6226-217PRW	LED 217 Premium round white	1 pc.	piece
6226-165PQW	LED 165 Premium square white	1 pc.	piece
6226-217PQW	LED 217 Premium square white	1 pc.	piece
6226-165PRN	LED 165 Premium round nickel brushed	1 pc.	piece
6226-217PRN	LED 217 Premium round nickel brushed	1 pc.	piece
6226-165PQN	LED 165 Premium square nickel brushed	1 pc.	piece
6226-217PQN	LED 217 Premium square nickel brushed	1 pc.	piece



Wattage [Watt]	12 (LED 165) or 18 (LED 217)
Connection voltage [Volts]	230
Lamp	SMD LED
Light colour	Warm white - neutral white
Colour temperature [Kelvin]	3000, 4000, 6500 K (adjustable)
Luminous flux [Lumen]	1000 or 1700 lm
Colour rendering	Ra > 80
Material	Aluminum/plastic
Operating device (transformer)	integrated
Dimmable	yes
Degree of protection	IP20
Installation height	15 mm
External diameter	165 mm or 217 mm

Finishing and protection from the factory

AQUA PROTECT

All-over coating to provide protection from moisture

Description

Our coating for the surface of your ceiling elements provides protection from moisture, repels water and is free of solvents. In order to protect your best wood SCHNEIDER ceilings from moisture, joints and penetrations merely need to be carefully masked off with AQUA PROTECT. We would be pleased to supply you with suitable TESCON VANA masking tape. best wood AQUA PROTECT is applied directly during production and the ceiling element is delivered to your site including the water-repellent coating.

Water-repellent

Solvent-free



Aqua Protect

Coating

COLOUR FINISHING + UV PROTECTION

Description

Building elements with mineral paint or the colourless UV protect paint applied, for internal application, are delivered ready picked with a protective film to the construction site. The colours impress with their matt look and durability. All best wood glazes retain the diffusion-open characteristics of the wood and provide a good room and living climate. The natureplus-certified coated elements are available in a sanded and rough sawn look.

Characteristics

Mineral matt

Water-based

Without solvents and plasticisers

Natureplus certified

Diffusion-open

Sustainable

For a good indoor and living climate

Remarks

The representations of colours and products may differ from the actual colouring. Wood is a natural product. Colour deviations due to differences in structure and grain are possible and typical.

Further colours available by request.

You are welcome to send us an e-mail to info@schneider-holz.com. You will receive handsheets from us by return of post for selecting colour and structure.

Colour variants / structure variants



Certificates (Download at www.schneider-holz.com)



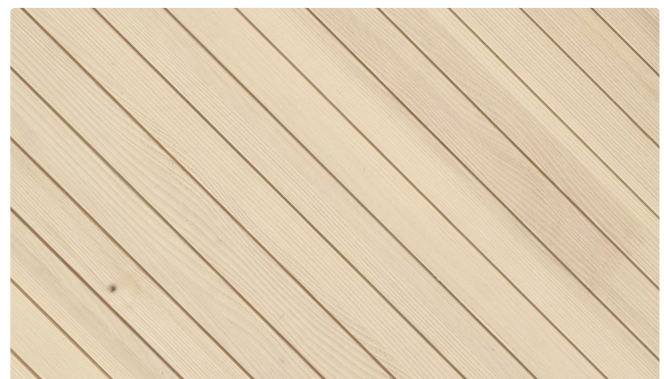
Accessories for finished ceilings can be found from page 44/45.

ACOUSTIC DESIGN

Description

The saw cuts are 2 mm wide and 6 mm deep, and the distance between the slots is 50 mm. The Acoustic design is available in coverage widths of 900 to 1200 mm at 50 mm intervals. Fire protection verification should be clarified depending on requirements.

We recommend the ACOUSTIC DESIGN PACKAGE with spruce KNOT-FREE and silver fir.



Accessories for ceiling finishing

Soft wax

Soft wax for surface correction of the best wood painted ceilings for repairing scratches, cracks, holes and dents in the surface area. Coordinated with the best wood colour variants.

Item no.	Designation	PU	UP
6213WACHS	Soft wax, available colours: transparent, UV-protect, soft white, alpine white	2 pcs./pack	pack
6213WACHS	Soft wax, available colours: light grey	2 pcs./pack	pack



Soft wax spatula

Soft wax spatula for applying and modelling soft wax during surface correction.

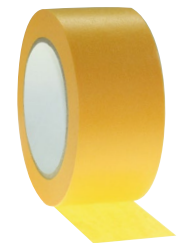
Item no.	Designation	PU	UP
6214WACHSSPACHTEL	Soft wax spatula	1 pieces	piece



best wood CEILING TAPE

Ceiling tape for masking all best wood painted ceilings. The ceiling tape is available with a width of 50 mm, and prevents adhesive residue on the varnished surfaces. 50 running metres per roll.

Item no.	Designation	PU	UP
6210DECKENTAPE	best wood Ceiling tape	50 rmt/roll	roll



Training

Colour processing training

You will be given tips and tricks in your training for the handling of our painted ceilings and the processing of Timberbase and Timbercolor. Let us get you ready!

Training
On-site training

Colours for processing at home

Please note the special processing guidelines for colour finishing!
read more at www.schneider-holz.com

TIMBERBASE

Primer for visible wooden elements indoors.

TIMBERBASE has been developed as an environmentally friendly industrial product for priming visible wooden elements indoors, such as cross laminated timber (CLT) or GLULAM (BSH), which are subsequently going to be treated with TIMBERCOLOR or UV-protect. Installation guidelines can be found at www.schneider-holz.com.

Item no.	Designation	PU	UP
6228TIMBERBASE	TIMBERBASE	1.0 l	litre
6228TIMBERBASE	TIMBERBASE	2.5 l	litre
6228TIMBERBASE	TIMBERBASE	5.0 l	litre



TIMBERCOLOR

Coloured finish for visible wooden elements indoors.

TIMBERCOLOR has been developed as an environmentally friendly industrial product for coating visible wooden elements indoors, such as cross laminated timber (CLT) or GLULAM (BSH), which are subsequently going to be given an elegant, ultra-matt and transparent appearance. TIMBERBASE must be applied as the primer.

The following colours are available:

soft white, alpine white, light grey. Further colours by request. Installation guidelines can be found at www.schneider-holz.com.

Item no.	Designation	PU	UP
6228TIMBERCOLOR	TIMBERCOLOR – any colour available	1.0 l	litre
6228TIMBERCOLOR	TIMBERCOLOR – any colour available	2.5 l	litre
6228TIMBERCOLOR	TIMBERCOLOR – any colour available	5.0 l	litre



UV-protect

Transparent finish for visible wooden elements indoors

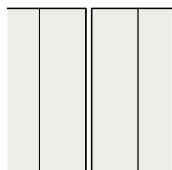
The transparent UV-protect glaze variant protects the light colour of the spruce, and is also suitable for independent application. TIMBERBASE must be applied as the primer. Installation guidelines can be found at www.schneider-holz.com.

Item no.	Designation	PU	UP
6228TIMBERCOLORUVPROTECT	UV-protect	1.0 l	litre
6228TIMBERCOLORUVPROTECT	UV-protect	2.5 l	litre
6228TIMBERCOLORUVPROTECT	UV-protect	5.0 l	litre

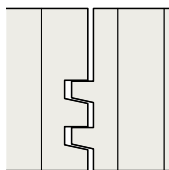


Installation variants best wood GLULAM

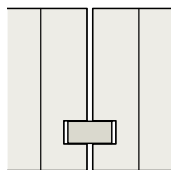
Installation variants best wood GLULAM – CEILING 100–280 mm



Variant 0
Square edge

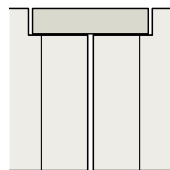


Variant 1
2 cm double groove and tongue



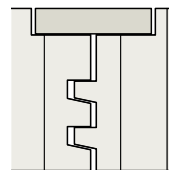
Variant 2

19 x 38 mm separate tongue



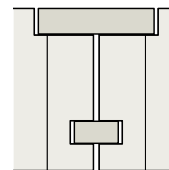
Variant 3

Standard rabbeting
23/51 mm
alternatively 28/51 mm
Special rabbeting
max. 30/68 mm



Variant 4

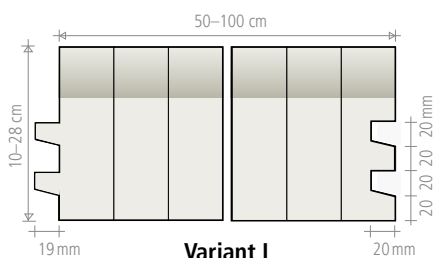
2 cm double tongue and groove
Standard rabbeting
23/51 mm
alternatively 28/51 mm
Special rabbeting
max. 30/68 mm



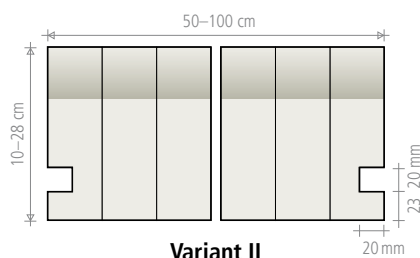
Variant 5

19 x 38 mm separate tongue
Standard rabbeting
23/51 mm
alternatively 28/51 mm
Special rabbeting
max. 30/68 mm

Variant descriptions best wood GLULAM – CEILING 100–280 mm



Variant I

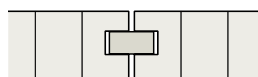


Variant II

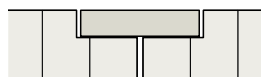
Installation variants best wood GLULAM – CEILING separated 45–95 mm



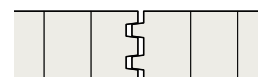
Variant 0
Square edge



Variant 2
19 x 38 mm
Thickness: 60–95 mm

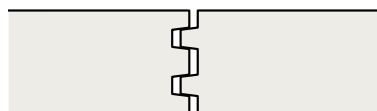
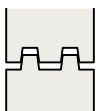


Variant 3
Standard rabbeting 23/51 mm
alternatively 28/51 mm
Thickness: 60–95 mm
Special rabbeting
up to max. 30/68 mm



1 cm double tongue and groove
Variant 6 Thickness: 45–59 mm
Variant 7 Thickness: 60–79 mm
Variant 8 Thickness: 80–99 mm

Installation variants planks for log houses/ceiling planks



1 cm double groove and tongue

Variant 7 Thickness: 60–79 mm

Variant 8 Thickness: 80–119 mm

Variant 9 Thickness: 120–159 mm

Variant 10 Thickness: 160–240 mm

GLULAM inlay boards / separate tongue

Inlay board for forming the ceiling section: Three-layer board SWP/2 S 3L according to EN 13353:2011, 22/100 mm in 5.00 m/piece

Inlay board for forming the ceiling section: Three-layer board SWP/2 S 3L according to EN 13353:2011, 27/100 mm in 5.00 m/piece

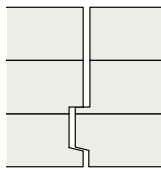
Separate tongue: spruce, 19/38 mm in 3.50 m/piece

Installation variants best wood CLT – CEILING

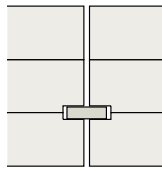
Installation variants best wood CLT – CEILING 60–280 mm



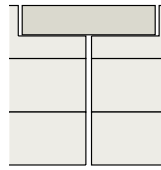
Variant 0
Square edge



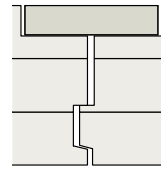
Variant 11
10 mm tongue and groove



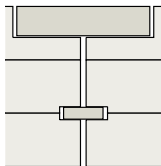
Variant 12
9 x 30 mm separate tongue



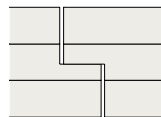
Variant 13
Standard rabbeting 23/51 mm
alternatively 28/51 mm
Special rabbeting
with 60 mm max. 23/59 mm
from 80 mm max. 35/59 mm



Variant 14
10 mm tongue and groove
Standard rabbeting 23/51
Thickness: 80–280 mm
Special rabbeting
with 80 mm max. 27/59
from 90 mm max. 35/59



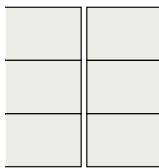
Variant 15
9 x 30 mm separate tongue
Standard rabbeting 23/51
Thickness: 100–280mm
Special rabbeting
max. 35/59



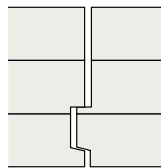
Variant 16
Shiplap edge (half
thickness/50 mm)
Thickness: 60–180 mm

Installation variants best wood CLT – CEILING XL

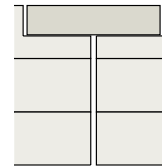
Installation variants best wood CLT – CEILING 60–360 mm



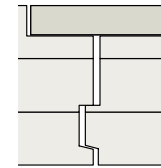
Variant 0
Square edge



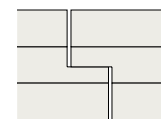
Variant 11
10 mm tongue and groove



Variant 13
Standard rabbeting
23/51 mm
alternatively 28/51 mm
Special rabbeting
max. 35/70 mm



Variant 14
Standard rabbeting 23/51 mm
10 mm tongue and groove
Thickness: 80–360 mm
alternatively 28/51 mm
Thickness: 90–360 mm
Special rabbeting
max. 35/70 mm



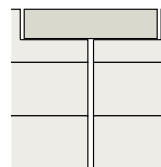
Variant 16
Shiplap edge (half
thickness/50 mm)
Thickness: 60–360 mm

Installation variants best wood CLT – WALL XL

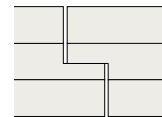
Installation variants best wood CLT – WALL 60–360 mm



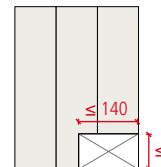
Variant 0
Square edge



Variant 13
Standard rabbeting
23/51 mm
alternatively 28/51 mm
Special rabbeting
max. 35/70 mm



Variant 16
Shiplap edge
(half thickness/50 mm)
Thickness: 60–360 mm



Variant 17
Rebate threshold

CLT inlay boards / separate tongue

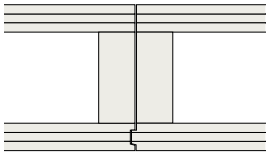
Inlay board for forming the ceiling section: Three-layer board SWP/2 S 3L according to EN 13353:2011, 22/100 mm in 5.00 m/piece

Inlay board for forming the ceiling section: Three-layer board SWP/2 S 3L according to EN 13353:2011, 27/100 mm in 5.00 m/piece

Separate tongue: Multiplex birch, 9/30 mm in 2.50 m/piece, chamfered on one side

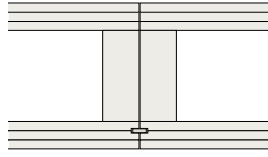
Installation variants best wood CLT BOX

Installation variant best wood CLT BOX / CLT BOX – CEILING FS 220–490 mm



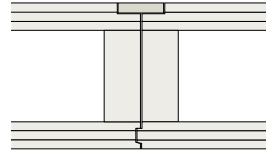
Variant 31

10 mm tongue and groove



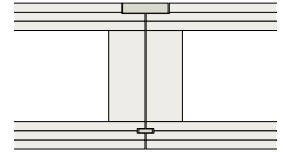
Variant 32

9 x 30 mm separate tongue



Variant 34

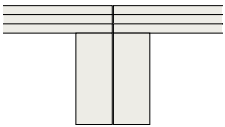
10 mm tongue and groove
Standard rabbeting 23/51 mm
alternatively 28/51 mm
Special rabbeting max. 35 x 59 mm



Variant 35

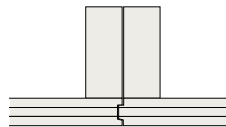
9 x 30 mm separate tongue
Standard rabbeting 23/51 mm
alternatively 28/51 mm
Special rabbeting max. 35 x 59 mm

Installation variant best wood CLT BOX – CEILING open 160–490 mm



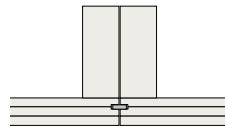
Variant 0

Square edge



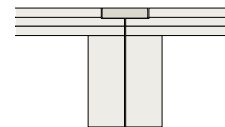
Variant 41

10 mm tongue and groove



Variant 42

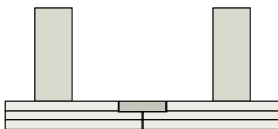
9 x 30 mm separate tongue



Variant 43

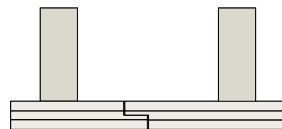
Standard rabbeting 23/51 mm
alternatively 28/51 mm
Special rabbeting max. 35 x 51 mm

Installation variant best wood CLT BOX – ROOF 160–490 mm



Variant 23

Standard rabbeting 23/51 mm



Variant 26

Shiplap edge (half thickness/50 mm)

CLT inlay boards / separate tongue

Inlay board for forming the ceiling section: Three-layer board SWP/2 S 3L according to EN 13353:2011, 22/100 mm in 5.00 m/piece

Inlay board for forming the ceiling section: Three-layer board SWP/2 S 3L according to EN 13353:2011, 27/100 mm in 5.00 m/piece

Separate tongue: Multiplex birch, 9/30 mm in 2.50 m/piece, chamfered on one side

Surface qualities best wood CLT, CLT BOX

Criteria	Local Industrial quality	Local visual industrial quality	Scandinavian visual quality	Local visual quality KNOT-FREE
1 Lamella width	≤ 240 mm	≤ 240 mm	≤ 160 mm	≤ 160 mm
2 Wood moisture	max. 15 % at delivery	max. 15 % at delivery	max. 15 % at delivery	max. 15 % at delivery
3 Wood species mixture	spruce/fir	spruce/fir	not permissible	not permissible
4 Bonding	occasional open joints up to max. 3 mm width permissible	occasional open joints up to max. 2 mm width permissible	occasional open joints up to max. 1 mm width permissible	occasional open joints up to max. 1 mm width permissible
5 Blue stain	permissible	slight discolouration permissible	not permissible	not permissible
6 Discolouration (brownness etc.)	permissible	slight discolouration permissible	not permissible	not permissible
7 Resin pockets	permissible	permissible	no clusters, max. 3 x 50 mm	no clusters, max. 3 x 50 mm
8 Bark ingrowths	permissible	permissible	not permissible	not permissible
9 Drying cracks	permissible	permissible	permissible ≤ 1.5 mm	permissible ≤ 1.5 mm
10 Core – pith	permissible	permissible	allowed if occasional	none
11 Insect infestation	burrows up to 2 mm allowed	not permissible	not permissible	not permissible
12 Branches – healthy	permissible	permissible	permissible	∅ max. 10 mm
13 Branches – black	permissible	permissible	∅ max. 10 mm	∅ max. 10 mm
14 Branches – hole	permissible	permissible up to max. 30 mm	not permissible	not permissible
15 Wane	max. 2 x 500 mm	not permissible	not permissible	not permissible
16 Surface	planed	sanded	sanded	sanded
17 Quality of the gluing of the narrow sides and of the end faces	occasional imperfections permissible	occasional imperfections permissible	occasional imperfections permissible	occasional imperfections permissible
18 Surface cosmetics with correction of knotholes, Lamello, strips, ...	permissible	permissible	permissible	permissible

Surface qualities best wood GLULAM, DUO, TRIO, CEILING PLANKS and PLANKS FOR LOG HOUSES

Criteria	Local Industrial quality	Local visual quality	Scandinavian visual quality	Local visual quality KNOT-FREE
1 Firm knots	permissible ^{2,3,4}	permissible ^{2,3,4}	permissible ^{2,3,4}	< 10 mm
2 Knots that have fallen out	permissible ^{2,3,4}	∅ ≤ 35 mm are permissible ^{2,3,4} ∅ > 35 mm are not permissible ^{2,3,4}	∅ ≤ 35 mm are permissible ^{2,3,4} ∅ > 35 mm are not permissible ^{2,3,4}	none
3 Resin pockets	permissible ³	permissible ³	permissible up to a width of 5 mm ³	permissible ³
4 Knots and imperfections improved by means of knot hole plugs or "ships"	permissible ³	permissible ³	permissible ³	permissible ³
5 Knots, edges, and resin pockets improved using filler compounds	permissible ^{3,6}	permissible ^{3,6}	permissible ^{3,6}	permissible ^{3,6}
6 Insect infestation	burrows up to 2 mm are permissible ³	burrows up to 2 mm are permissible ³	not permissible	not permissible
7 Pith	permissible ³	permissible ³	permissible if occasional	none
8 Width of shrinkage cracks ^{3,5,7}	no limit	up to 5 mm	up to 4 mm	up to 5 mm
9 Discolouration as a result of blue stain and red/brown nail-resistant streaks	permissible	permissible if occasional	permissible if occasional	permissible if occasional
10 Mould infestation	not permissible ⁵	not permissible ⁵	not permissible ⁵	not permissible ⁵
11 Soiling	not permissible ⁵	not permissible ⁵	not permissible ⁵	not permissible ⁵
12 Wane	up to 10 mm depth and 10 mm width ³	not permissible	not permissible	not permissible
13 Lamellae partially not planed	isolated lamellae, depth up to 10 mm permissible	not permissible	not permissible	not permissible
14 Processing of the surface	planed and chamfered, plane knocks up to 1 mm in depth permissible, places not planed up to 2 mm permissible	planed and chamfered, plane knocks up to 1 mm in depth permissible	planed and chamfered, plane knocks up to 0.5 mm in depth permissible	sanded

¹ Deviations from the limits defined below in the lines 2,3,6–9,13 are to be tolerated in the following scope: Maximum three deviations/m² visible surface for the visual quality, maximum one deviation/m² visible surface for the Scandinavian quality.

² Permissible knot size according to DIN 4074.

³ No limit on the number.

⁴ Measurement of the knot diameter analogous to the measurement of the diameters of individual knots with scantlings according to DIN 4074-1: 2021-06

⁵ As-delivered condition

⁶ Filler compounds that can be painted over are to be explicitly requested.

⁷ Regardless of the surface quality, the crack depth in elements not subjected to transverse stress may be up to 1/6 of the element width, and up to 1/8 of the element width of each side.

Solid structural timber (KVH®)

Sort keys

Technical regulation: DIN EN 15497:2014 Sort criterion	Demands on solid structural timber for industrial purposes (KVH NSI)	Comments
Wane	measured diagonally a max. of 10 % minor cross section side	increased demands compared to DIN 4074-1
Knots	A max. 2/5	equal to sorting class S 10
Condition of knots	not exceeding 70 mm	acc. to DIN 4074-1 permitted sorting characteristic for KVH
Annual ring width	up to 6 mm	equal to sorting class S 10 according to DIN 4074-1
Slope of the grain	up to 120 mm/m	equal to sorting class S 10 according to DIN 4074-1
Radial shrinkage cracks (= seasoning cracks)	permissible	increased demands compared to DIN 4074-1 for KVH-SI
Lightning/frost cracks, ring peeling	not permissible	Equal to sorting class S10 according to DIN 4074-1
Discolouration: Blue stain	permissible	increased demands compared to DIN 4074-1 for KVH-SI
Nail-holding brown and red stripes	up to 2/5 of the cross section of the surface are permitted	increased demands compared to DIN 4074-1 for KVH-SI
Red and white rot	not permissible	
Compression wood	up to 2/5 of the cross section or the surface are permitted	equal to sorting class S 10 according to DIN 4074-1
Insect damages	burrows up to 2 mm Ø of fresh timber insects are permitted	increased demands compared to DIN 4074-1 for KVH-SI
Mistletoe infestation	not permissible	equal to sorting class S 10 according to DIN 4074-1
Bending (longitudinal bending, twist)	Split-heart cutting max. 8 mm/2 m	increased demands compared to DIN 4074-1 for split-heart cut timber
Wood moisture	max. 18 %	additional sorting characteristic for KVH
Cutting class	split-heart	additional sorting characteristic for KVH
Dimensional stability of the cross section	± 1 mm	additional sorting characteristic for KVH
Bark pocket		additional sorting characteristic for KVH-SI
Resin pockets		additional sorting characteristic for KVH-SI
Surface condition	planed and chamfered	additional sorting characteristic for KVH
Conditioning of the ends	rectangular cross-cut	additional sorting characteristic for KVH

Basic information on best wood SCHNEIDER® surface qualities

Elements are manufactured in different qualities and thus fulfil differing visual and design requirements. The desired surface qualities can be found in the above table. Deviations from this information are to be separately contractually agreed.

Transportation and installation; constructional instructions

All elements, with the exception of CLT XL, are packed in wrapping foil at the factory, so they are protected during loading, transportation, and brief intermediate storage. The transport packing only provides short-term protection and should be removed as soon as possible due to the danger of condensation formation leading to blue stain and mould growth. The elements are then to be protected with suitable coverings against moisture penetration, direct sunlight and dirt.

The outer layers of the elements, in particular, absorb moisture in the state of construction. This building moisture must be gradually shifted to the equilibrium moisture content of later use. Careful heating and airing, and the consequent slow reduction of the relative air humidity and corresponding wood moisture, is conducive to this.

Depending on the environmental conditions, shrinkage cracks can occur on the surfaces of the elements – including along the glue line – because of the wood's natural swelling and shrinking behaviour. In elements without systemic transverse stress such shrinkage cracks can be tolerated up to a depth of 1/6 of the element width (each side), in elements with planned transverse stress up to 1/8 of the element width (per side). The tendency towards crack formation grows where there is direct weathering and strongly changing climatic stresses. At the planning stage, protective measures should already also be envisaged for the state of construction. These include, in particular, covers and unimpeded water drainage. It is recommended that coatings only be applied once the equilibrium moisture content has been achieved. Glue joints in elements made of larch sometimes tend to open up when exposed to direct weathering, because of intracellular substances. We therefore recommend that glulam made from larch be built exclusively into the use classes I and II.

The wooden elements must not be exposed to the external climate or extreme climate conditions (e.g. excessive use of construction dryers or direct moisture impact) at any time. Due to the natural and thus unavoidable shrinkage and swelling characteristics of timber, small cracks may occur depending upon the room climate. The shrinkage and swelling characteristics of the ceiling must always be considered for all detailed construction forms (when attached to walls etc.). Wood can be expected to acclimatize at an equilibrium moisture content of 9 % in closed and normal air-conditioned rooms.

Dimensioning aid

best wood **GLULAM – CEILING**



Perm. loads* [kN/m ²]	Live loads [kN/m ²]	Span length of single span beams [m]						Span lengths of double span beams [m]					
		3.00	4.00	5.00	6.00	7.00	8.00	3.00	4.00	5.00	6.00	7.00	8.00
1.00	1.00						200		100				
	1.50		100										
	2.00	100		140	180	200	220	100	100	140	180	200	200
	3.00												
	5.00	100	120	160	200	220	260	100	120				220
2.50	1.00	100					240	100					180
	1.50		120	160	180	220			120	160	160	160	
	2.00						260						200
	3.00	100				200		100			180		
	5.00		140	180	200	240	280			180	200	200	220
4.00	1.00												200
	1.50				200	240	280					180	
	2.00	100	140	180				100	140	140	160		220
	3.00											200	
	5.00	120			220	260	-				180	200	240

* The dead weight of the best wood GLULAM board has already been taken into account.

These tables are only intended for pre-dimensioning and are no substitute for structural analysis.

Fire resistance: R60 R90

Example for a GLULAM ceiling in a detached house:

Design values:

Permanent load $g = 1.0 \text{ kN/m}^2$

Live load $q = 2.0 \text{ kN/m}^2$

Span length $l = 5.0 \text{ m}$

Result:

Demanded thickness of ceiling = 140 mm

Charring rate = R90

This pre-measuring is no substitute for structural verification.

The following parameters and certificates were taken into account in the calculations:

Certificate of load-bearing capacity according to DIN EN 1995-1-1:2010-12 with NA:2013-08

Certificate of structural fire design according to DIN EN 1995-1-2:2010-12 with NA:2010-12

Application class 1

Load duration class of the intermittent load: medium

$\Psi_2 = 0.3$; $k_{ser} = 0.60$; GL24h

Ultimate limit state; certificate of bending stress; certificate of (rolling) shear stress

Serviceability limit state; initial deflection $\leq l/300$; final deflection $\leq l/200$; total deflection $\leq l/300$

Verification of vibration: Width of the ceiling panel $b = 1.2 \cdot \text{span length}$; additional rigidity EI_v from 5 cm screed slab; modal damping ratio $\zeta = 0.03$;

limitation of acceleration $a \leq 0.4 \text{ m/s}^2$

Dimensioning aid

best wood CLT – CEILING | CEILING XL



Perm. loads* [kN/m ²]	Live loads [kN/m ²]	Span length of single span beams [m]						Span lengths of double span beams [m]						
		3.00	4.00	5.00	6.00	7.00	8.00	3.00	4.00	5.00	6.00	7.00	8.00	
1.00	1.00	80						60						
	1.50		100				200	200	220					
	2.00	80		140						160	200	200	220	
	3.00		110				220	240						
	5.00	100	130	160	220		260		80	110		220	220	
2.50	1.00												200	
	1.50	90			200		220	260						
	2.00		130	160					80	130	160	170	170	
	3.00					220						200	220	
	5.00	100	140	180		220	240	280	90			180	220	240
4.00	1.00							280						
	1.50	100		180			240					200		
	2.00		140		220				90	140	150	160	220	
	3.00											170		
	5.00	110	160	200			260				160	200	220	240

* The dead weight of the best wood CLT panel has already been taken into account

These tables are only intended for pre-dimensioning and are no substitute for structural analysis.

Fire resistance:

R0	R30	R60	R90

Example for a CLT ceiling in a detached house:

Design values:

Permanent load $g = 1.0 \text{ kN/m}^2$
 Live load $q = 2.0 \text{ kN/m}^2$
 Span length $l = 5.0 \text{ m}$

Result:

Demanded thickness of ceiling = 140 mm
 Charring rate = R60

This pre-measuring is no substitute for structural verification.

The following parameters and certificates were taken into account in the calculations:

Certificate of load-bearing capacity according to DIN EN 1995-1-1:2010-12 with NA:2013-08

Certificate of structural fire design according to DIN EN 1995-1-2:2010-12 with NA:2010-12

Application class 1

Load duration class of the intermittent load: medium

$\Psi_2 = 0.3$; $k_{ser} = 0.60$; C24

Ultimate limit state; certificate of bending stress; certificate of (rolling) shear stress

Serviceability limit state; initial deflection $\leq l/300$; final deflection $\leq l/200$; total deflection $\leq l/300$

Verification of vibration: Width of the ceiling panel $b = 1.2 \cdot \text{span length}$; additional rigidity EI_{sl} from 5 cm screed slab; modal damping ratio $\zeta = 0.03$;

limitation of acceleration $a \leq 0.4 \text{ m/s}^2$

Dimensioning aid best wood CLT BOX

(lower CLT panel 60 mm)



Perm. loads* [kN/m ²]	Live loads [kN/m ²]	Span length of single span beams [m]						Span lengths of double span beams [m]								
		6.00	7.00	8.00	9.00	10.00	11.00	3.00	4.00	5.00	6.00	7.00	8.00			
1.00	1.00	220/80	220/80	240/80	260/80	300/80	340/80	220/80	220/80	220/80	220/80	240/80	240/100			
	1.50				280/80	320/80										
	2.00				260/80	300/80								340/80	380/80	
	3.00				260/80	300/80								340/80	380/80	420/100
	5.00				260/80	300/80								340/80	380/80	420/100
2.50	1.00	220/80	240/80	280/80	320/80	360/80	380/80	220/80	220/80	220/80	220/80	220/80	220/80			
	1.50				360/100	400/120										
	2.00				260/80	300/80								340/80	420/80	
	3.00				260/80	300/80								340/80	420/100	
	5.00				240/80	280/80								320/80	360/100	420/80
4.00	1.00	240/80	280/80	320/80	360/80	420/80	460/100	220/80	220/80	220/80	220/80	220/100	240/100			
	1.50				360/120	420/80										
	2.00				380/80	460/120										
	3.00				280/100	340/80								420/120	480/100	
	5.00				260/80	300/80								340/80	400/80	440/100

* The dead weight of the best wood CLT BOX has already been taken into account

These tables are only intended for pre-dimensioning and are no substitute for structural analysis.

R60

Fire resistance:



Example for a CLT BOX in a multi-family house:

Design values:

Permanent load	$g = 2.50 \text{ kN/m}^2$	Result: 340/80	Thickness of ceiling	= 340 mm
Live load	$q = 3.00 \text{ kN/m}^2$		Rib width	= 80 mm
Span length	$l = 9.00 \text{ m}$		Charring rate	= R60

The following parameters and certificates were taken into account in the calculations:

Certificate of load-bearing capacity according to DIN EN 1995-1-1:2010-12 with NA:2013-08

Certificate of structural fire design according to DIN EN 1995-1-2:2010-12 with NA:2010-12

Upper CLT panel: 60 mm; lower CLT panel: 60 mm

Application class 1

Load duration class of the intermittent load: medium

$\Psi_2 = 0.3$; $k_{ser} = 0.60$; C24

Ultimate limit state: Certificate of bending stress, certificate of (rolling) shear stress

Serviceability limit state: Initial deflection $\leq l/300$; final deflection $\leq l/200$; total deflection $\leq l/300$

Verification of vibration: Width of the ceiling panel $b = 1.2 \cdot l$; additional rigidity $EI_{s,5}$ from 5 cm screed slab; modal damping ratio $\zeta = 0.03$;

limitation of acceleration $a \leq 0.4 \text{ m/s}^2$

Dimensioning aid best wood CLT BOX – CEILING FS

(lower CLT panel 60 mm)



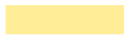
Perm. loads* [kN/m ²]	Live loads [kN/m ²]	Span length of single span beams [m]						Span lengths of double span beams [m]														
		6.00	7.00	8.00	9.00	10.00	11.00	3.00	4.00	5.00	6.00	7.00	8.00									
1.00	1.00	240/80	300/80	360/80	280/80	320/80	340/80	220/80	220/80	220/80	240/80	300/80	360/80									
	1.50						360/80															
	2.00						300/80							340/80	380/80							
	3.00						340/100							380/100	420/120							
	5.00						240/100							340/100	380/100	420/120						
2.50	1.00	280/80	260/80	300/80	340/80	380/80	420/80	220/80	220/80	220/80	280/80	220/100	220/100									
	1.50						420/100						220/120									
	2.00						400/80						440/80	220/120	240/120							
	3.00						280/100						280/100	320/100	360/100	420/100	460/100	220/100	220/120	280/100	260/120	300/120
	5.00						280/100						280/100	320/100	360/100	420/100	460/100	220/100	220/120	280/100	260/120	300/120
4.00	1.00	240/100	280/100	320/100	360/120	420/80	460/100	220/80	220/80	240/100	220/100	220/120	240/120									
	1.50						460/120															
	2.00						340/80						380/80	420/100	480/100							
	3.00						300/100						340/100	380/100	440/100	480/100	220/100	220/120	240/120	280/120		
	5.00						260/100						300/100	340/120	400/100	440/120	-	220/100	240/120	260/120	300/120	340/120

* The dead weight of the best wood CLT BOX – CEILING FS and the chippings in the rafter has already been taken into account.

These tables are only intended for pre-dimensioning and are no substitute for structural analysis.

R60

Fire resistance:



Example for a CLT BOX– CEILING FS in a multi-family house:

Design values:

Permanent load	$g = 2.50 \text{ kN/m}^2$	Result: 340/80	Thickness of ceiling	= 340 mm
Live load	$q = 3.00 \text{ kN/m}^2$		Rib width	= 80 mm
Span length	$l = 9.00 \text{ m}$		Charring rate	= R60

The following parameters and certificates were taken into account in the calculations for the dimensioning aid best wood CLT BOX – CEILING FS:

Element width: 1.25 m

Verification with 40 kg/m² chippings in the CLT BOX – CEILING FS

Certificate of load-bearing capacity according to DIN EN 1995-1-1:2010-12 with NA:2013-08

Certificate of structural fire design according to DIN EN 1995-1-2:2010-12 with NA:2010-12

Upper CLT panel: 60 mm; lower CLT panel: 60 mm

Application class 1

Load duration class of the intermittent load: medium

$\Psi_2 = 0.3$; $k_{\text{red}} = 0.60$; C24

Ultimate limit state: Certificate of bending stress, certificate of (rolling) shear stress

Serviceability limit state: Initial deflection $\leq l/300$; final deflection $\leq l/200$; total deflection $\leq l/300$

Verification of vibration: Width of the ceiling panel $b = 1.2 \cdot l$; additional rigidity EI_{slab} from 5 cm screed slab; modal damping ratio $\zeta = 0.03$;

limitation of acceleration $a \leq 0.4 \text{ m/s}^2$

Dimensioning aid best wood CLT BOX – CEILING FS

(lower CLT panel 90 mm)



Perm. loads* [kN/m ²]	Live loads [kN/m ²]	Span length of single span beams [m]						Span lengths of double span beams [m]										
		6.00	7.00	8.00	9.00	10.00	11.00	3.00	4.00	5.00	6.00	7.00	8.00					
1.00	1.00	250/80	310/80	310/120	290/80	310/80	350/80	250/80	250/80	250/80	250/80	310/80	310/120					
	1.50					330/80												
	2.00					370/80												
	3.00					310/80								350/80	390/80			
	5.00					350/100								390/100	430/100			
2.50	1.00	290/80	250/80	290/80	330/80	370/80	390/80	250/80	250/80	250/80	290/80	250/100	250/100					
	1.50					410/80												
	2.00					410/120												
	3.00					330/120								370/80	430/80			
	5.00					270/80								310/80	350/80	370/100	410/100	450/120
4.00	1.00	250/80	290/80	330/80	370/80	410/100	430/80	250/80	250/80	250/100	250/100	250/120	250/120					
	1.50					470/80												
	2.00					370/100												
	3.00					250/100								290/100	330/100	390/100	430/100	490/100
	5.00					250/120								310/100	350/100	390/100	450/100	250/100

* The dead weight of the best wood CLT BOX – CEILING FS and the chippings in the rafter has already been taken into account.

These tables are only intended for pre-dimensioning and are no substitute for structural analysis.

R90

Fire resistance:



Example for a CLT BOX– CEILING FS in a multi-family house:

Design values:

Permanent load	$g = 2.50 \text{ kN/m}^2$	Result: 350/80	Thickness of ceiling	= 350 mm
Live load	$q = 3.00 \text{ kN/m}^2$		Rib width	= 80 mm
Span length	$l = 9.00 \text{ m}$		Charring rate	= R90

The following parameters and certificates were taken into account in the calculations for the dimensioning aid best wood CLT BOX – CEILING FS:

Element width: 1.25 m

Verification with 40 kg/m² chippings in the CLT BOX – CEILING FS

Certificate of load-bearing capacity according to DIN EN 1995-1-1:2010-12 with NA:2013-08

Certificate of structural fire design according to DIN EN 1995-1-2:2010-12 with NA:2010-12

Upper CLT panel: 60 mm; lower CLT panel: 90 mm

Application class 1

Load duration class of the intermittent load: medium

$\Psi_2 = 0.3$; $k_{ser} = 0.60$; C24

Ultimate limit state: Certificate of bending stress, certificate of (rolling) shear stress

Serviceability limit state: Initial deflection $\leq l/300$; final deflection $\leq l/200$; total deflection $\leq l/300$

Verification of vibration: Width of the ceiling panel $b = 1.2 \cdot l$; additional rigidity EI_{sl} from 5 cm screed slab; modal damping ratio $\zeta = 0.03$;

limitation of acceleration $a \leq 0.4 \text{ m/s}^2$