

MORE FROM WOOD.

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EGGER fire protection constructions

**Tested and classified wood
components for wall, roof and ceiling**



collage

Overview of tested and classified wood components for wall, roof and ceiling

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1 General appraisal certificates (abP) for wood construction in line with state building codes

The tables below provide a summary of constructions classified in Germany for wood construction with EGGER OSB, EGGER DHF and EGGER Timber according to general appraisal certificates (abP).

Please contact our Technical Support to obtain the complete abP.

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Explanations regarding the tables

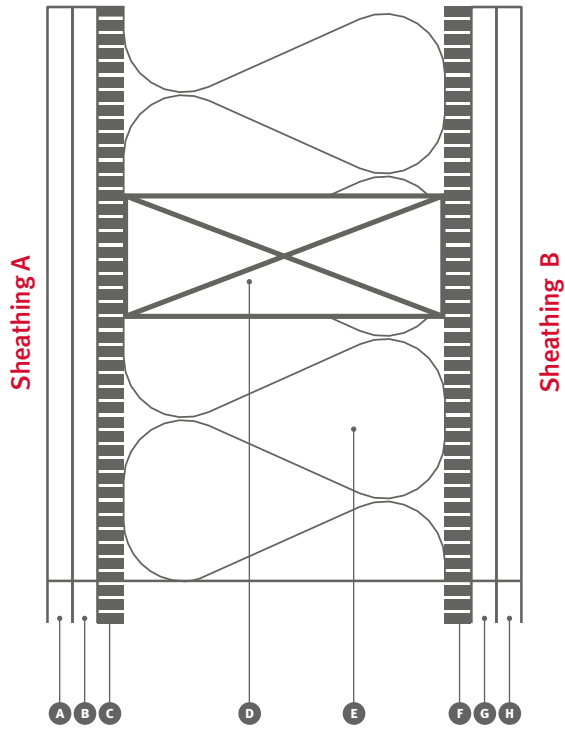
Sheathing:

GKB	plasterboard according to EN 520, type A
GKF	plaster sheet, fire protection sheet according to EN 520, type DF
GF	gypsum fibreboard
OSB	Oriented Strand Board according to EN 300 or abZ Z-9.1-566
DHF	Vapour-permeable wood fibreboard according to EN 622-5 or abZ Z-9.1-454

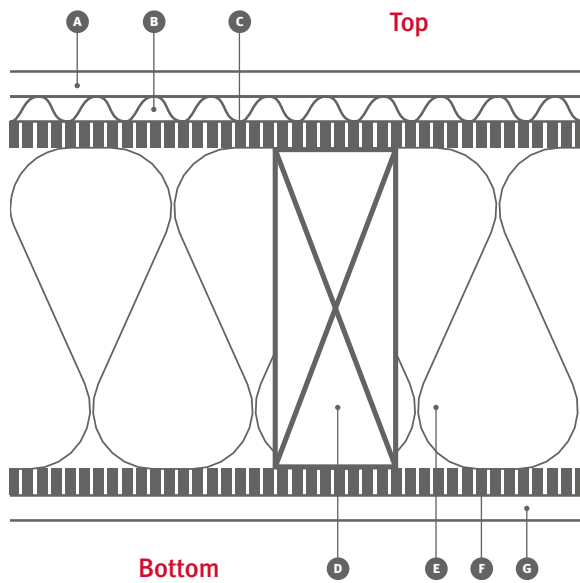
Insulation:

FL/HF	Hemp according to ETA 05/0037
GW	Glass wool according to EN 13162
SchW	Sheep wool according to ETA 05/0021
SW	Stone wool according to EN 13162
WF	Wood-fibre insulating board according to EN 13171
ZF	Cellulose insulation according to CUP 12.01/02
RG	Rockwool granulate (A1)

Basic structure walls



Basic structure ceiling/roof






Inner values count – OSB and DHF.





Load-bearing timber panel walls exposed to fire on one side with fire resistance duration F 60-B fire protection class according to DIN 4102-2:1977




abP no.: P-SAC-02/III-746
valid until: 26 March 2020 (extension requested)
Basics: Test reports of Holzforschung Austria
 Test reports of MFPA Leipzig

 Structure of the wall construction		 Fire protection class according to DIN 4102-2:1977
Layer	Fire exposure A → B	F 60-B
	Fire exposure B → A	F 60-B
Sheathing A	A STO mineral base plastering according to DIN 18550-1/2	≥ 7 mm
	B STO wood fibre M050 ≥ 45 kg/m ³	≥ 50 mm
	C Wood stands, S10 or C24	≥ 60 × 100 mm
	D Glass wool ≥ 11 kg/m ³	≥ 100 mm
Sheathing B	E EGGER OSB 3 or OSB 4 TOP	≥ 15 mm
	F GKF type DF	≥ 12,5 mm
	maximum admissible load	admissible tension in the post $s \leq 2,0 \text{ N/mm}^2$
	maximum wall height	5.000 mm
	maximum axis distance a	625 mm
	admissible fasteners for the sheathing	≥ 40 mm jag bolts, a ≤ 150 mm
	Noise protection according to DIN 4109-33:2016 Rated noise insulation $R_w(C;Ctr)$	50 dB (-1;-5) Tab. 6, Z. 9






Load-bearing timber panel walls exposed to fire on one side with fire resistance duration REI 30, REI 60 and REI 90 fire protection class according to DIN 4102-2:1977

abP no.: P-SAC-02/III-752
valid until: 14 October 2020 (extension required)
Basics: Test reports of Holzforschung Austria
 Test reports of MFPA Leipzig Test report of MPA Braunschweig, IBMB
 Expert opinion MFPA Leipzig, GS-3.2/16-141-1

 Structure of the wall construction		 Fire protection class according to DIN 4102-2:1977			
		1	2	3	4
Layer ¹⁾	Wall structure no.				
	Fire exposure A → B	F 30-B	F 30-B	F 30-B	F 60-B
	Fire exposure B → A	F 30-B	F 30-B	F 60-B	F 60-B
Sheathing A	GKF type DF according to EN 520				
	GF according to EN 15283-2				≥ 15 mm
	Installation level, 60×40 mm batten (non-insulated or with GW11 fully insulated)				
	EGGER OSB 3 or OSB 4 TOP	≥ 15 mm	≥ 15 mm		≥ 15 mm
	EGGER DHF			≥ 15 mm	
C	Glass wool ≥ 11 kg/m ³			≥ 160 mm	
	Cellulose insulation ≥ 50 kg/m ³	≥ 160 mm	≥ 160 mm		≥ 160 mm
	D Solid structural timber – post, S10 or C24	≥ 60 × 160 mm	≥ 60 × 160 mm	≥ 60 × 160 mm	≥ 60 × 160 mm
Sheathing B	EGGER DHF		≥ 15 mm		
	EGGER OSB 3 or OSB 4 TOP	≥ 15 mm		≥ 15 mm	≥ 15 mm
	GKF type DF according to EN 520			≥ 12,5 mm	
	GF				≥ 15 mm
	maximum wall height	5.000 mm	5.000 mm	5.000 mm	5.000 mm
	maximum axis distance	625 mm	625 mm	625 mm	625 mm
	admissible fasteners for the sheathing	≥ 40 mm jag bolts, a ≤ 150 mm			
	Noise protection according to DIN 4109-33:2016 Rated noise insulation Rw(C;Ctr)				
	Notes	¹⁾ If several construction materials are specified per layer, they can be used alternatively.			



 Structure of the wall construction		 Fire protection class according to DIN 4102-2:1977					
		5	6	7	8	9	
Layer ¹⁾	Wall structure no.						
	Fire exposure A → B	F 60-B	F 60-B	F 60-B	F 60-B	F 90-B	
	Fire exposure B → A		F 60-B			F 90-B	
Sheathing A	A	GKF type DF according to EN 520	≥ 12,5 mm	≥ 12,5 mm	≥ 12,5 mm	≥ 2 × 12,5 mm	
		GF according to EN 15283-2	≥ 15 mm				
		Installation level, 60×40 mm batten (non-insulated or with GW11 fully insulated)			≥ 40 mm non-insulated	≥ 40 mm (insulated)	≥ 7 mm
	B	EGGER OSB 3 or OSB 4 TOP	≥ 15 mm	≥ 15 mm	≥ 15 mm	≥ 15 mm	≥ 15 mm
		EGGER DHF					
	C	Glass wool ≥ 11 kg/m ³		≥ 60 mm	≥ 100 mm	≥ 60 mm	≥ 60 mm
Cellulose insulation ≥ 50 kg/m ³		≥ 160 mm					
D Solid structural timber – post, S10 oder C24		≥ 60 × 160 mm	≥ 60 × 100 mm	≥ 60 × 160 mm	≥ 60 × 100 mm	≥ 60 × 100 mm	
Sheathing B	E	EGGER DHF		≥ 15 mm			
		EGGER OSB 3 or OSB 4 TOP	≥ 15 mm	≥ 15 mm		≥ 12 mm	≥ 15 mm
	F	GKF type DF according to EN 520		≥ 12,5 mm			≥ 2 × 12,5 mm
		GF	≥ 15 mm				
	maximum wall height	5.000 mm	5.000 mm	5.000 mm	5.000 mm	5.000 mm	
	maximum axis distance	625 mm	625 mm	625 mm	625 mm	625 mm	
	admissible fasteners for the sheathing	≥ 40 mm jag bolts, a ≤ 150 mm					
	 Noise protection according to DIN 4109-33:2016 Rated noise insulation R _w (C;Ctr)						
	Notes	¹⁾ If several construction materials are specified per layer, they can be used alternatively.					



Load-bearing timber panel walls exposed to fire on one side with fire resistance duration F90-B und F30-B_{inside}/F90-B_{outside} fire protection class according to DIN 4102-2:1977




abP no.: P-SAC-02/III-728
 valid until 10 January 2021
 Basics: Test reports MFPA Leipzig

Structure of the wall construction		Fire protection class according to DIN 4102-2:1977				
Layer ¹⁾	Wall structure no.	1	2	3	4	
	Fire exposure sheathing A --> B	F90-B	F90-B	F90-B _{outside}	F90-B _{outside}	
	Fire exposure sheathing B --> A	F90-B	F90-B	F30-B _{inside}	F30-B _{inside}	
Sheathing A	A	GKF type DF according to EN 520	2 x 15 mm	2 x 15 mm		
		Mineralic plaster			5 mm	
		STEICO protect			60 mm	
	B	EGGER OSB 3 or OSB 4 TOP	12mm	12mm		
C		STEICO-flex ≥ 47 kg/m ³	160 mm	160 mm	160 mm	
		STEICO-zell ≥ 47 kg/m ³			160 mm	
	D		Solid structural timber - studs S10 or C24	60 mm x 160 mm		60 mm x 160 mm
			STEICO wall 160		60 mm x 160 mm	60 mm x 160 mm
Sheathing B	E	EGGER OSB 3 or OSB 4 TOP	12mm	12mm	12mm	
	F		GKF type DF according to EN 520	2 x 15 mm	2 x 15 mm	
		GKF type A according to EN 520			9,5 mm	
	maximum wall height	≤ 5.000 mm	≤ 5.000 mm	≤ 5.000 mm	≤ 5.000 mm	
	maximum axis distance a	625 mm	625 mm	625 mm	625 mm	
	admissible fasteners	Clamps, wood screws, drywall screws				
	maximum admissible load	22,5 kN/m	22,5 kN/m	16,8 kN/m	16,8 kN/m	
	"Noise protection airborne sound R' _w , R DIN 4109, supplement 1"	k.A.	k.A.	k.A.	k.A.	
	Comments	1) or closed wooden facade				
		2) not required from the point of view of fire protection				
		3) The construction materials per layer A-F, can be used alternatively				



Non-load bearing partition walls exposed to fire on one side in lightweight construction of fire resistance duration EI 30, EI 60 and EI 90, with EGGER Ergo Board construction boards on metal studs

abP-no.: P-SAC-02/III - 804 Ä
valid until: 06. january 2021
Basics: Test reports MFPA Leipzig
Other: MFPA expertise no. GS 2.1/15-022 and GS 3.2/16-142-1

 Structure of the wall construction		 Fire protection class according to DIN 4102-1:1977 and EN			
Layer	Fire exposure A → B / B → A	F 30-AB / EI 30	F 60-AB / EI 60	F 90-AB / EI 90	
Sheathing A	A	GKF type DF according to EN 520		15 mm	15 mm
		GKF type A according to EN 520	9,5 mm		
	B	EGGER Ergo Board	12 mm	12 mm	12 mm
	C	Mineral wool 40 kg/m ³	60 mm	100 mm	100 mm
D	Metal studs CW 75 × 50 mm, d= 0,6 mm	75 mm			
	Metal studs CW 100 × 50 mm, d= 0,6 mm		100 mm	100 mm	
Sheathing B	E	EGGER Ergo Board	12 mm	12 mm	12 mm
	F	GKF type DF according to EN 520		15 mm	15 mm
GKF type A according to EN 520		9,5 mm			
	admissible installation sector according to DIN 4103-1	2	2	2	
	maximum wall height	≤ 5.000 mm	≤ 5.000 mm	≤ 3.000 mm	
	admissible fasteners	Ergo Board: Screws with milling head + HiLo thread ø 3,9 × 35 mm GKF/GKB: Drywall screws ø 3,5 × 35 mm			
	Noise protection according to DIN 4109-33:2016 Rated noise insulation Rw(C;Ctr)	51 (-4;-10) dB	56 (-3;-8) dB	56 (-3;-8) dB	






Wood beam ceiling / exposed beam ceiling with exposed beam bearing exposed to fire on one side with fire resistance duration F 30-B with EGGER OSB 4 TOP as load-bearing sheathing

abP no.: P-SAC-02/III - 522

valid until: 01 May 2021

Basics: Test reports of IBS Linz Test reports of MFPA Leipzig

 Structure of the wall construction		 Fire protection class according to DIN 4102-2:1977
Layer	Fire exposure from below	F 30-B
	Fire exposure from above	F 30-B
Sheathing top	A EGGER OSB 4 TOP flooring board	18 mm
	B wood-fibre insulating board WF according to EN 13171, raw density $\geq 260 \text{ kg/m}^3$	30 mm
	C EGGER OSB 4 TOP flooring board	30 mm
	D Glue-laminated timber/solid structural timber beam layer according to statics	280 × 120 mm
	maximum ceiling span width	$\leq 5.000 \text{ mm}$
	Noise protection airborne sound test value R_w , $P(C; Ctr)$ [dB]	
	impact sound $L_{n,w(CI)}$ DIN 4109	






Decoupled wood beam ceiling with EGGER OSB 4 TOP of the fire resistance class F 90-B according to DIN 4102-2:1977

abP no.: P-SAC-02/III-537

valid until: 29. August 2021

Basics: Test reports of Holzforschung Austria Test reports of MFPA Leipzig
Test report of MPA Braunschweig, IBMB Expert opinion MFPA Leipzig, GS-3.2/16-141-1

 Structure of the wall construction		 Fire protection class according to DIN 4102-2:1977		
Layer	Fire exposure from below	F 90-B	F 90-B	F 90-B
	Fire exposure from above	F 30-B	F 60-B	F 60-B
Sheathing top	A EGGER OSB 4 TOP Fermacell screed element	≥ 18 mm	≥ 25 mm	
	B Bavaria Phonewell (not necessary from the point of view of fire protection)	≥ 15 mm		≥ 15 mm
	C Wood fibreboard 260 kg/m ³ Impact sound insulation board stone wool	≥ 30 mm	≥ 30 mm	
				≥ 30 mm
	D EGGER OSB 4 TOP clamped in the beam layer, a = 150 mm EGGER OSB 4 TOP large board clamped in beam layer, a = 150 mm	≥ 15 mm	≥ 15 mm	≥ 15 mm
		≥ 15 mm	≥ 15 mm	≥ 15 mm
Sheathing bottom	E Glue-laminated timber/solid structural timber beam layer according to static	≥ 280 × 120 mm	≥ 280 × 120 mm	280 × 120 mm
	F Glue-laminated timber/solid structural timber frontal edge board	≥ 280 × 120 mm	≥ 280 × 120 mm	280 × 120 mm
	G Overlay on wall elements decoupled	yes	yes	yes
	H Beam layer connected in front via joist hanger	≥ 200 × 100 mm	≥ 200 × 100 mm	≥ 200 × 100 mm
	I Clapboard siding, a = 400 mm	≥ 40 × 60 mm	≥ 40 × 60 mm	≥ 40 × 60 mm
	J Wood fibre insulation strip connected to the beam layer	≥ 20 mm	≥ 20 mm	≥ 20 mm
	K Cavity insulation Cellulose insulation Isofloc	≥ 100 mm	≥ 100 mm	≥ 100 mm
	L GF	≥ 15 mm	≥ 15 mm	≥ 15 mm
	M Fibreglass mesh	yes	yes	yes
	N GF	≥ 18 mm	≥ 18 mm	≥ 18 mm
	admissible installation sector (according to EN 1055)	Building class B2/C1		
	maximum ceiling span width	single span ≤ 7,0 m, double span ≤ 10,0 m		
	admissible fasteners	to this end, please request the complete abP from EGGER		
	Noise protection airborne sound test value $R_{w,P}$ (C; Ctr) [dB]	68 (-3; -10)	71 (-4; -10)	»65 estimate
	Airborne sound test value $R_{w,P}$ (C; Ctr) [dB]	≤ 46 (2) dB	≤ 50 (1) dB	≤ 43 (2) dB
	Impact sound range adjustment value $C_{i,50-2500}$ [dB]	3	3	4

2 Classification reports for wood construction for resistance to fire according to EN 13501-2

Complete classification reports can be requested from the technical hotline in Wismar. Contact details are available on the last page of this document.

For structures classified according to EN 13501-2 in regards to reaction to fire, the following requirements apply:

Sheathing:

GKB	Plasterboard	⇒ mean raw density $\rho \geq 600 \text{ kg/m}^3$
GKF	Plaster sheet, fire protection sheet	⇒ mean raw density $\rho \geq 800 \text{ kg/m}^3$
GF	Gypsum fibreboard	⇒ mean raw density $\rho \geq 1000 \text{ kg/m}^3$
HWP	Wood-based panel (e.g., OSB)	⇒ mean raw density $\rho \geq 600 \text{ kg/m}^3$

Dämmstoff:

FL / HF	Hemp according to ETA 05/0037	⇒ mean raw density $\rho \geq 30 \text{ kg/m}^3$
GW	Glass wool according to EN 13162	⇒ mean raw density $\rho \geq 11 \text{ kg/m}^3$
SchW	Sheep wool according to ETA 05/0021	⇒ mean raw density $\rho \geq 16 \text{ kg/m}^3$
SW	Stone wool according to EN 13162	⇒ mean raw density $\rho \geq 30 \text{ kg/m}^3$
WF	Wood fibre insulation board according to EN 13171	⇒ mean raw density $\rho \geq 45 \text{ kg/m}^3$
ZF	Cellulose insulation according to CUP 12.01/02	⇒ injection density $\rho \geq 50 \text{ kg/m}^3$
RG	Rockwool granulate (A1)	⇒ injection density $\rho \geq 50 \text{ kg/m}^3$

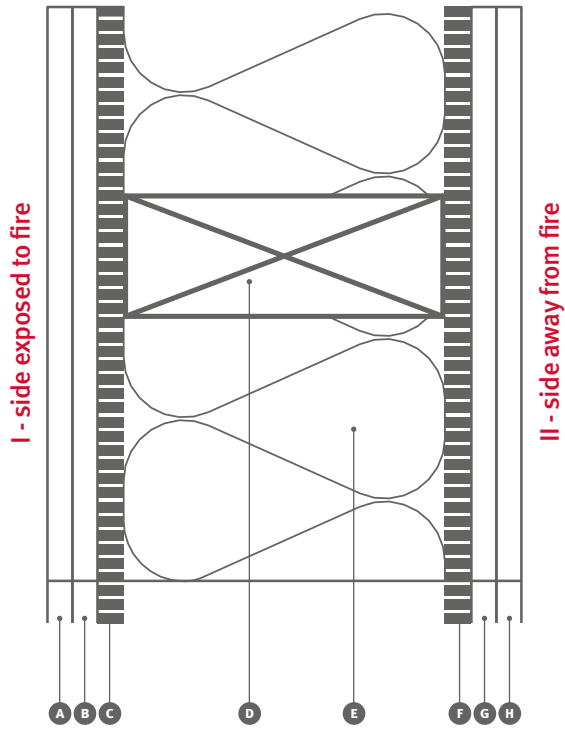
The classification for the fire exposure of the side exposed to the fire applies to asymmetric sheathed wall structures (side I). In the case of symmetrically sheathed wall structures, the same fire resistance can be assumed for both sides in the case of one-sided wall exposure.

The classifications are based on ideal load conditions without precurvatures. The static system of the testing configuration approximates Euler case 2 with a certain clamping action of the ceiling.

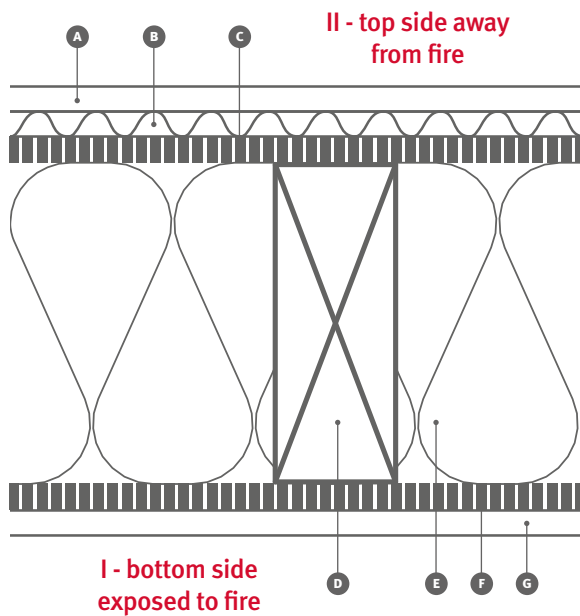
The classifications are done in line with paragraph 7.3.2 of the ONORM EN 13501-2.

EGGER Eurospan E1 P5, included in the classification reports 443/2014/25 to 443/2014/29, may be replaced on the side that is away from the fire with EGGGER OSB and EGGGER DHF of the same thickness and density ($\geq 600 \text{ kg/m}^3$) as well as the same fire resistance for timber frame ceilings / roof elements. These board materials should be considered of equal value.

Basic structure walls



Basic structure ceiling/roof





Load-bearing walls exposed to fire on one side with fire resistance duration REI 30 fire protection class according to EN 13501-2

Customer no.: Classification reports of Holzforschung Austria
Classification reports of MPA Braunschweig, IBMB

Structure of the wall construction		Fire protection class according to EN 13501-2				
Layer ¹⁾	Classification report no.	2586/2018/03	2586/2018/05	2586/2018/15	2586/2018/17	
	valid until	March 2024	unlimited	unlimited	unlimited	
	Fire exposure one side I → II	REI 30	REI 30	REI 30	REI 30	
I - side exposed to fire	A	Batten solid wood vertical, 20 mm joint			40 × 20 mm ²⁾	
		Batten solid wood horizontal, a = 420 mm			50 × 30 mm	
		GKF type DF according to EN 520		≥ 15 mm		
		GF according to EN 15283-2		≥ 15 mm		
	B	EGGER OSB 3 or OSB 4 TOP	≥ 19 mm			≥ 15 mm
		EGGER DHF	≥ 20 mm		≥ 15 mm	
	C	Glass wool EN 13162, ≥ 11 kg/m ³	≥ 160 mm		≥ 160 mm	
		Stone wool EN 13162, ≥ 30 kg/m ³	160 mm			
		cellulose according to CUP 12.01/02, ≥ 50 kg/m ³	160 mm	≥ 160 mm		≥ 160 mm
		woodfibre EN 13171, ≥ 45 kg/m ³	160 mm			
		hemp HF according to ETA 05/0037, ≥ 30 kg/m ³	160 mm			
		sheep wool according to ETA 05/0021 ≥ 16 kg/m ³	160 mm			
	D	Solid structural timber – studs, S10 or C24	≥ 60 × 160 mm	≥ 60 × 160 mm	≥ 60 × 160 mm	≥ 60 × 160 mm
II - side away from fire	E	EGGER DHF	≥ 15 mm	≥ 15 mm	≥ 15 mm	
		EGGER OSB 3 or OSB 4 TOP	≥ 15 mm			
	F	GKF type DF according to EN 520			≥ 12,5 mm	
		GF according to EN 15283-2			≥ 12,5 mm	
	G	Ventilated facade	admissible	admissible	admissible	admissible
		maximum admissible load	32 kN/lfm	32 kN/lfm	32 kN/lfm	32 kN/lfm
		maximum wall height	3.000 mm	3.000 mm	3.000 mm	3.000 mm
	maximum axis distance a	625 mm	625 mm	625 mm	625 mm	
	admissible fasteners					
	Comments	¹⁾ If several construction materials are specified per layer, they can be used alternatively. ²⁾ or closed wooden facade				



Structure of the wall construction		Fire protection class according to EN 13501-2				
Layer ¹⁾	Classification report no.	2586/2018/19	2586/2018/20	2586/2018/21	K-3649/428/08-MBA BS	
	valid until	March 2024	March2024	March2024	unlimited	
	Fire exposure one side I → II	REI 30	REI 30	REI 30	REI 30	
I - side exposed to fire	A	Batten solid wood vertical, 20 mm joint	40 × 20 mm ²⁾			
		Batten solid wood horizontal, a = 420 mm	50 × 30 mm			
		GKF type DF according to EN 520			≥ 12,5 mm	
		GF according to EN 15283-2			12,5 mm	
	B	EGGER OSB 3 or OSB 4 TOP		≥ 15 mm	≥ 9 mm	
		EGGER DHF	≥ 15 mm			≥ 15 mm
	C	Glass wool EN 13162, ≥ 11 kg/m ³	≥ 160 mm	≥ 160 mm	≥ 160 mm	
		Stone wool EN 13162, ≥ 30 kg/m ³	≥ 160 mm	≥ 160 mm	≥ 160 mm	
		cellulose according to CUP 12.01/02, ≥ 50 kg/m ³	≥ 160 mm	≥ 160 mm	≥ 160 mm	≥ 160 mm (Isocell, 65 kg/m ³)
		woodfibre EN 13171, ≥ 45 kg/m ³	≥ 160 mm	≥ 160 mm	≥ 160 mm	
		hemp HF according to ETA 05/0037, ≥ 30 kg/m ³	≥ 160 mm	≥ 160 mm	≥ 160 mm	
		sheep wool according to ETA 05/0021 ≥ 16 kg/m ³	≥ 160 mm	≥ 160 mm	≥ 160 mm	
	D	Solid structural timber – studs S10 or C24	≥ 60 × 160 mm	≥ 60 × 160 mm	≥ 60 × 100	≥ 60 × 160 mm
II - side away from fire	E	EGGER DHF				
		EGGER OSB 3 or OSB 4 TOP	≥ 9 mm ³⁾	≥ 15 mm	≥ 9 mm	≥ 15 mm
		GKF type DF according to EN 520				
	F	GF according to EN 15283-2				
		GKF type DF according to EN 520	≥ 12,5 mm		≥ 12,5 mm	
	G	GF according to EN 15283-2	≥ 12,5 mm		≥ 12,5 mm	
		Ventilated facade	admissible	admissible	admissible	admissible
		32 kN/lfm	32 kN/lfm	19,2 kN/lfm	37,7 kN/Lfm	
	maximum wall height	3.000 mm	3.000 mm	3.000 mm	3.000 mm	
	maximum axis distance a	625 mm	625 mm	625 mm	625 mm	
	admissible fasteners				clamps	
	Comments	¹⁾ If several construction materials are specified per layer, they can be used alternatively.				
		²⁾ or closed wooden facade				
		³⁾ not required from the point of view of fire protection				

Perfect fit – room-high formats save time and money.





Load-bearing walls exposed to fire on one side with fire resistance duration REI 45 fire protection class according to EN 13501-2

Customer no.: Classification reports of Holzforschung Austria

Structure of the wall construction		Fire protection class according to EN 13501-2			
Layer ¹⁾	Classification report	2586/2018/04	2586/2018/18	2586/2018/22	
	valid until:	unlimited	unlimited	March 2024	
	Fire exposure one side I → II	REI 45	REI 45	REI 45	
I – side exposed to fire	B	Batten solid wood vertical, 20 mm joint		40 × 20 mm ²⁾	
		Batten solid wood horizontal, a = 420 mm		50 × 30 mm	
		GKF type DF according to EN 520	≥ 15 mm		≥ 12,5 mm
		GF according to EN 15283-2			12,5 mm
	C	EGGER OSB 3 or OSB 4 TOP			≥ 9 mm
		EGGER DHF		≥ 15 mm	
	D	Glass wool EN 13162, ≥ 11 kg/m ³		≥ 160 mm	≥ 100 mm
		Stone wool EN 13162, ≥ 30 kg/m ³			≥ 100 mm
		Cellulose according to CUP 12.01/02, ≥ 50 kg/m ³	≥ 160 mm		≥ 100 mm
		Woodfibre EN 13171, ≥ 45 kg/m ³			≥ 100 mm
		Hemp according to ETA 05/0037, ≥ 30 kg/m ³			≥ 100 mm
		Sheep wool ETA 05/0021 ≥ 16 kg/m ³			≥ 100 mm
	E	Solid structural timber – studs S10 or C24	≥ 60 × 160 mm	≥ 60 × 160 mm	≥ 60 × 100 mm
	II – side away from fire	F	EGGER DHF	≥ 15 mm	
EGGER OSB 3 or OSB 4 TOP				≥ 15 mm	≥ 9 mm
GKF type DF according to EN 520				≥ 12,5 mm	≥ 12,5 mm
GF according to EN 15283-2					≥ 12,5 mm
H	Ventilated facade	admissible	admissible	admissible	
	maximum admissible load	32 kN/lfm	32 kN/lfm	19,2 kN/lfm	
	maximum wall height	3.000 mm	3.000 mm	3.000 mm	
	maximum axis distance a	625 mm	625 mm	625 mm	
	admissible fasteners				
	remarks	¹⁾ If several construction materials are specified per layer, they can be used alternatively. ²⁾ or closed wooden facade			





Load-bearing walls exposed to fire on one side with fire resistance duration REI 60 fire protection class according to EN 13501-2

Customer no.: Classification reports of Holzforschung Austria

Structure of the wall construction		Fire protection class according to EN 13501-2				
Layer ¹⁾	Classification report	2586/2018/01	2586/2018/02	2586/2018/06	2586/2018/08	
	valid until:	March 2024	March 2024	unlimited	unlimited	
	Fire exposure one side I → II	REI 60 ²⁾	REI 60	REI 60	REI 60	
I - side exposed to fire	A	GF according to EN 15283-2				
	B	Batten solid wood horizontal a = 315 mm				
		GKF type DF according to EN 520				≥ 12,5 mm
	C	GF according to EN 15283-2			≥ 15 mm	
		EGGER OSB 3 or OSB 4 TOP	≥ 19 mm	≥ 19 mm	≥ 15 mm	≥ 15 mm
		Glass wool EN 13162, ≥ 11 kg/m ³				≥ 170 mm
		Stone wool EN 13162, ≥ 30 kg/m ³	≥ 160 mm	≥ 160 mm		
		cellulose according to CUP 12.01/02, ≥ 50 kg/m ³			≥ 160 mm	
		Woodfibre EN 13171, ≥ 45 kg/m ³				
	D	Hemp according to ETA 05/0037, ≥ 30 kg/m ³				
Sheep wool, according to ETA 05/0021 ≥ 16 kg/m ³						
E	Solid structural timber – studs S10 or C24	60 × 160 mm	60 × 160 mm	60 × 160 mm	140 x 280 mm	
II - side away from fire	F	EGGER DHF	≥ 15 mm	≥ 15 mm	≥ 15 mm	≥ 15 mm
		EGGER OSB 3 or OSB 4 TOP	≥ 19 mm			
	G	GKF type DF according to EN 520				
		GF according to EN 15283-2				
		HWoodfibre WF according to EN 13171, >190 kg/m ³				
	H	GKF type DF according to EN 520				
		GF according to EN 15283-2				
	H	Mineral plaster system				
H	Ventilated facade	admissible	admissible	admissible	admissible	
	maximum admissible load	32 kN/lfm	32 kN/lfm	32 kN/lfm	101 kN/lfm	
	maximum wall height	3.000 mm	3.000 mm	3.000 mm	3.000 mm	
	maximum axis distance a	625 mm	625 mm	625 mm	625 mm	
	admissible fasteners					
	Comments	¹⁾ If several construction materials are specified per layer, they can be used alternatively.				
		²⁾ as partition wall, when symmetrically sheathed according to the verified side exposed to the fire.				



 Structure of the wall construction		 Fire protection class according to EN 13501-2					
Layer ¹⁾	Classification report	2586/2018/09	2586/2018/11	2586/2018/13	2586/2018/16*	2586/2018/23	
	valid until:	unlimited	unlimited	unlimited	unlimited	March 2024	
	fire exposure one side I → II	REI 60	REI 60 ²⁾	REI 60	REI 60	REI 60 ³⁾	
I - side exposed to fire	A	GF according to EN 520		12,5 mm			
	B	Batten solid wood horizontal a = 315 mm		50 × 50 mm			
		GKF type DF according to EN 520	12,5 mm			12,5 mm	15 mm
	C	GF according to EN 15283-2			18 mm	≥ 12,5 mm	15 mm
		EGGER OSB 3 or OSB 4 TOP	≥ 15 mm	≥ 15 mm	≥ 15 mm	≥ 15 mm	≥ 15 mm
	D	Glass wool EN 13162, ≥ 11 kg/m ³	≥ 60 mm	≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 160 mm
		Stone wool EN 13162, ≥ 30 kg/m ³				≥ 100 mm	≥ 160 mm
		cellulose according to CUP 12.01/02, ≥ 50 kg/m ³				≥ 100 mm	≥ 160 mm
		Woodfibre EN 13171, ≥ 45 kg/m ³				≥ 100 mm	≥ 160 mm
		Hemp according to ETA 05/0037, ≥ 30 kg/m ³				≥ 100 mm	≥ 160 mm
Sheep wool, according to ETA 05/0021 ≥ 16 kg/m ³					≥ 100 mm	≥ 160 mm	
E	Solid structural timber – studs S10 or C24	60 × 100 mm	60 × 160 mm	60 × 160 mm	60 × 160 mm	60 × 160 mm	
II - side away from fire	F	EGGER DHF		≥ 15 mm	≥ 15 mm	≥ 15 mm	
		EGGER OSB 3 or OSB 4 TOP	≥ 15 mm			≥ 15 mm	
	GKF type DF according to EN 520	GF according to EN 15283-2	≥ 12,5 mm				≥ 15 mm
		Fibreboard WF according to EN 13171, >190 kg/m ³				≥ 50 mm	
		GF according to EN 15283-2					≥ 15 mm
	G	GKF type DF according to EN 520					
		Mineral plaster system				15 mm	
	H	Ventilated facade	admissible	admissible	admissible	admissible	admissible
	maximum admissible load	19,2 kN/lfm	19,2 kN/lfm	31,7 kN/lfm	32 kN/lfm	32 kN/lfm	
	maximum wall height	3.000 mm	3.000 mm	3.000 mm	3.000 mm	3.000 mm	
	maximum axis distance a	625 mm	625 mm	625 mm	625 mm	625 mm	
	admissible fasteners						
Comments	¹⁾ If several construction materials are specified per layer, they can be used alternatively..						
	²⁾ as partition wall, when symmetrically sheathed according to the verified side exposed to the fire.						
	*) valid only together with an Advisory opinion from HF Austria 1071/2020 - BH						



Load-bearing walls exposed to fire on one side with fire resistance duration REI 90 fire protection class according to EN 13501-2

Customer no.: Classification reports of Holzforschung Austria

Basis: Test reports of IBS Linz Test reports of MA 39, Vienna

Structure of the wall construction		Fire protection class according to EN 13501-2				
		2586/2018/10	2586/2018/12	2586/2018/24	2586/2018/24	
Classification report		2586/2018/10	2586/2018/12	2586/2018/24	2586/2018/24	
valid until		unlimited	unlimited	March 2024	March 2024	
Layer ¹⁾	fire exposure one side I → II	REI 90 ²⁾	REI 90	REI 90	REI 90 ²⁾	
I - side exposed to fire	A	GKF type DF according to EN 520	≥ 12,5 mm	≥ 15 mm	≥ 12,5 mm	
		GF according to EN 15283-2			≥ 12,5 mm	
	B	GKF type DF according to EN 520	≥ 12,5 mm	≥ 15 mm	≥ 12,5 mm	≥ 25 mm
		GF according to EN 15283-2			≥ 12,5 mm	
	C	EGGER OSB 3 or OSB 4 TOP	≥ 15 mm		≥ 9 mm	≥ 9 mm
		EGGER DHF				
	D	Glass wool EN 13162, ≥ 11 kg/m ³	≥ 60 mm	≥ 160 mm		
		Stone wool EN 13162, ≥ 30 kg/m ³			≥ 160 mm	≥ 160 mm
		cellulose according to CUP 12.01/02, ≥ 50 kg/m ³				
		Woodfibre EN 13171, ≥ 45 kg/m ³				
hemp according to ETA 05/0037, ≥ 30 kg/m ³						
E	Solid structural timber – studs S10 or C24	≥ 60 × 100 mm	≥ 60 × 160 mm	≥ 60 × 160 mm	≥ 60 × 160 mm	
F	EGGER DHF		≥ 15 mm			
	EGGER OSB 3 or OSB 4 TOP	≥ 15 mm		≥ 9 mm	≥ 9 mm	
G	GKF type DF according to EN 520	≥ 12,5 mm		≥ 12,5 mm	≥ 25 mm	
	GF according to EN 15283-2					
H	GKF type DF according to EN 520	≥ 12,5 mm				
	GF according to EN 15283-2					
I	Ventilated facade	yes	yes	yes	yes	
	maximum admissible load	19 kN/lfm	31,7 kN/lfm	32 kN/lfm	32 kN/lfm	
	maximum wall height	3.000 mm	3.000 mm	3.000 mm	3.000 mm	
	maximum axis distance a	625 mm	625 mm	625 mm	625 mm	
	admissible fasteners					
	Notes	¹⁾ If several construction materials are specified per layer, they can be used alternatively. ²⁾ as partition wall, when symmetrically sheathed according to the verified side exposed to the fire				






Non-load bearing partition walls in lightweight construction of fire resistance duration EI 30 to EI 90 with EGGER Ergo Board construction boards on metal studs

Customer no.: KB 3.2/15-013-3 und KB 3.2/15-013-4

valid until: unlimited

Basis: Test reports MPFA Leipzig

 Structure of the wall construction		 Fire protection class according to EN 13501-2			
Layer	Fire exposure A → B / B → A	EI 30	EI 90	EI 90	
Sheathing A	A	GKF		≥ 15 mm	≥ 15 mm
		GKB	≥ 9,5 mm		
	B	EGGER Ergo Board	≥ 12 mm	12 mm	12 mm
	C	C Mineral wool SW 30	≥ 60 mm	100 mm	100 mm
	D	Metal studs CW 75 × 50 mm, d = 0,6 mm	≥ 75 mm		
Metal studs CW 100 × 50 mm, d = 0,6 mm			≥ 100 mm	≥ 100 mm	
Sheathing B	E	EGGER Ergo Board	≥ 12 mm	≥ 12 mm	≥ 12 mm
	F	GKF		≥ 15 mm	≥ 15 mm
GKB		9,5 mm			
	admissible installation sector (according to DIN 4103-1)	2	2	2	
	maximum wall height	≤ 4.000 mm	≤ 4.000 mm	≤ 3.000 mm	
	admissible fasteners noise insulation	Ergo Board: screws with milling head + HiLo thread ø 3,9 x 35 mm GKF/GKB drywall construction screws ø 3,5 x 35 mm			
	noise insulation Rw(C;Ctr) according to ISO 10140-2, rated after ISO 717-1)	51 (-4;-10) dB	56 (-3;-8) dB	56 (-3;-8) dB	



Ceilings exposed to fire from below only with dry screed structure of fire resistance duration REI 30 and REI 45 fire protection class according to EN 13501-2

Customer no.: Classification reports of Holzforschung Austria

Basis: Test reports of IBS Linz
Test reports of MA 39, Wien

		Structure of the wall construction	Fire protection class according to EN 13501-2			
			2586/2018/25	1446/2016/01	2586/2018/32	2586/2018/27
		Classification report no.	2586/2018/25	1446/2016/01	2586/2018/32	2586/2018/27
		valid until:	unlimited	June 2021	unlimited	March 2024
Layer ¹⁾		fire exposure one side I → II	REI 30	REI 30	REI 30	REI 45
II - Top side	A	EGGER OSB 3 or OSB 4 TOP	admissible	admissible	≥ 18 mm	admissible
		Wood-fibre insulation EN 13171, ≥ 11 kg/m ³			≥ 30 mm	
	C	EGGER OSB 3 or OSB 4 TOP	≥ 19 mm	≥ 18 mm	≥ 30 mm	≥ 19 mm
I - fbottom side exposed to fire	D	glue-laminated timber/solid structural timber beam layer according to static	≥ 80 × 200 mm	≥ 80 × 220 mm	≥ 180 × 240 mm	≥ 120 × 360 mm
	E	Glass wool EN 13162, ≥ 11 kg/m ³	≥ 100 mm			≥ 360 mm
		Stone wool EN 13162, ≥ 30 mm kg/m ³	≥ 100 mm	≥ 200 mm		≥ 360 mm
		cellulose according to CUP 12.01/02, ≥ 50 kg/m ³	≥ 100 mm			≥ 360 mm
		Woodfibre EN 13171, ≥ 45 kg/m ³	≥ 100 mm			≥ 360 mm
		Hemp according to ETA 05/0037, ≥ 30 mm kg/m ³	≥ 100 mm			≥ 360 mm
		Sheep wool according to ETA 05/0021 ≥ 16 kg/m ³	≥ 100 mm			≥ 360 mm
	F	batten a = 400 mm	≥ 22 × 80 mm			≥ 22 × 80 mm
	G	Spring rail between batten (mm) ar = 400 mm				
	H	EGGER OSB 3 or OSB 4 TOP		≥ 15 mm		
	I	GKF type DF according to EN 520	≥ 12,5 mm			≥ 12,5 mm
		GF according to EN 15283-2	≥ 12,5 mm			≥ 12,5 mm
		maximum load	3,66 kN/m ²	4,5 kN/m ²	5,3 kN/m ²	19,4 kN/m ²
	maximum span width	5.000 mm	5.000 mm	5.000 mm	5.000 mm	
	maximum axis distance of the load-bearing structure	625 mm	625 mm	750 mm	625 mm	
	Sound protection Airborne sound R' _w according to DIN 4109-33 Info Service Wood Series 3, Part 3, Issue 3, May 1999	> 50 dB depending on dry screed				
	Impact sound L' _{n,w} according to DIN 4109-33 Info Service Wood Series 3, Part 3, Issue 3, May 1999	< 43 ... 56 dB depending on dry screed system				
	Notes	¹⁾ several construction materials are specified per layer, they can be used alternatively.				



Ceilings exposed to fire from below only with dry screed structure of fire resistance duration REI 60 fire protection class according to EN 13501-2

Customer no.: Classification reports of Holzforschung Austria

Basis: Test reports of IBS Linz
Test reports of MA 39, Vienna

		Structure of the wall construction	Fire protection class according to EN 13501-2	
			Classification report no.	Classification report no.
Layer ¹⁾		Classification report no.	2586/2018/28	2586/2018/26
		valid until:	March 2024	March 2024
		fire exposure one side I ... II	REI 60	REI 60
II - Top side	A	Dry screed structure with EGGER OSB flooring boards	admissible	admissible
	C	EGGER OSB 3 or OSB 4 TOP	22 mm	22 mm
I - flootom side exposed to fire	D	Ceiling beam	80 × 200 mm	80 × 220 mm
	E	Glass wool EN 13162, ≥ 11 kg/m ³	200 Kmm	
		Stone wool EN 13162, ≥ 30 kg/m ³	200 mm	200 mm
		cellulose according to CUP 12.01/02, ≥ 50 kg/m ³	200 mm	
		Woodfibre EN 13171, ≥ 45 kg/m ³	200 mm	
		Hemp according to ETA 05/0037, ≥ 30 kg/m ³	200 mm	
		Sheep wool according to ETA 05/0021 ≥ 16 kg/m ³	200 mm	
	F	Batten a = 400 mm	22 × 80 mm	
	I	GKF type DF according to EN 520	12,5 mm	
		GF according to EN 15283-2		12,5 mm
	J	GKF type DF according to EN 520	12,5 mm	
		GF according to EN 15283-2		12,5 mm
	maximum load	3,66 kN/m ²	3,66 kN/m ²	
	maximum span width	5.000 mm	5.000 mm	
	maximum axis distance of the load-bearing structure	625 mm	625 mm	
	Sound protection Airborne sound R' _w according to DIN 4109-33 Info Service Wood Series 3, Part 3, Issue 3, May 1999	> 50 dB depending on dry screed		
	Impact sound L' _{n,w} according to DIN 4109-33 Info Service Wood Series 3, Part 3, Issue 3, May 1999	< 43 ... 56 dB depending on dry screed		
	Notes	¹⁾ If several construction materials are specified per layer, they can be used alternatively.		



Roofs exposed to fire from below only with roof covering of fire resistance duration REI 30, REI 45, REI 60, and REI 90 fire class according to EN 13501-2

Customer no.: Classification reports of Holzforschung Austria

Basis: Test reports of IBS Linz
Test reports of MA 39, Vienna

		Structure of the wall construction	Fire protection class according to EN 13501-2		
			Classification report no.	1446/2016/01	1446/2016/03
Layer ¹⁾		valid until:	June 2021	June 2021	June 2021
		fire exposure one side I → II	REI 30	REI 30	REI 30
	II - Top side	A	Roof covering	admissible	admissible
B		EGGER OSB 3 or OSB 4 TOP	18 mm	15 mm	15 mm
		EGGER DHF	20 mm	15 mm	15 mm
I - bottom side exposed to fire	D	Ceiling beam	80 × 220 mm	80 × 200 mm	60 × 200 mm
	E	Glass wool EN 13162, ≥ 11 kg/m ³			
		Stone wool EN 13162, ≥ 30 kg/m ³	200 mm	200 mm	
		Cellulose according to CUP 12.01/02, ≥ 50 kg/m ³			200 mm
		Woodfibre EN 13171, ≥ 45 kg/m ³			
		Hemp according to ETA 05/0037, ≥ 30 kg/m ³			
		Sheep wool according to ETA 05/0021 ≥ 16 kg/m ³			
	F	Batten a = 400 mm			
	G	27 mm spring rail between batten, a = 400 mm		ar = 315 mm	
	H	EGGER OSB 3 or OSB 4 TOP	15 mm		12 mm
	I	GKF type DF according to EN 520			12,5 mm
		GF according to EN 15283-2			
	J	GKF type DF according to EN 520			
GF according to EN 15283-2					
	maximum load	4,5 kN/m ²	3 kN/m ²	2,6 kN/m ²	
	maximum span width	5.000 mm	5.000 mm	5.000 mm	
	maximum axis distance of the load-bearing structure	625 mm	800 mm	625 mm	
	Notes	¹⁾ If several construction materials are specified per layer, they can be used alternatively.			



		Structure of the wall construction	Fire protection class according to EN 13501-2			
		Classification report no.	443/2014/27	1446/2016/02	443/2014/26	443/2014/28
		valid until	March 2024	June 2021	March 2024	March 2024
Layer ¹⁾		fire exposure one side I → II	REI 45	REI 60	REI 60	REI 60
II - Top side	A	Roof covering	admissible	admissible	admissible	admissible
	B	EGGER OSB 3 or OSB 4 TOP	22 mm	> 19 mm	22 mm	22 mm
EGGER DHF		20 mm	20 mm	20 mm	20 mm	
I - bottom side exposed to fire	D	Ceiling beam	120 × 360 mm	120 × 360 mm	80 × 220 mm	80 × 200 mm
	E	Glass wool EN 13162, ≥ 11 kg/m ³	360 mm	360 mm		200 mm
		Stone wool EN 13162, ≥ 30 kg/m ³	360 mm	360 mm	200 mm	200 mm
		Cellulose according to CUP 12.01/02, ≥ 50 kg/m ³	360 mm	360 mm		200 mm
		Woodfibre EN 13171, ≥ 45 kg/m ³	360 mm	360 mm		200 mm
		Hemp according to ETA 05/0037, ≥ 30 kg/m ³	360 mm	360 mm		200 mm
		Sheep wool according to ETA 05/0021 ≥ 16 kg/m ³	360 mm	360 mm		200 mm
	F	Batten a = 400 mm	22 × 80 mm	22 × 80 mm		22 × 80 mm
	G	27 mm spring rail between batten, a = 400 mm				
	H	EGGER OSB 3 or OSB 4 TOP				
	I	GKF type DF according to EN 520	12,5 mm	12,5 mm		12,5 mm
		GF according to EN 15283-2	12,5 mm	12,5 mm	12,5 mm	
J	GKF type DF according to EN 520				12,5 mm	
	GF according to EN 15283-2			12,5 mm		
	maximum load	19,4 kN/m ²	19,4 kN/m ²	3,66 kN/m ²	3,66 kN/m ²	
	maximum span width	5.000 mm	5.000 mm	5.000 mm	5.000 mm	
	maximum axis distance of the load-bearing structure	625 mm	625 mm	625 mm	625 mm	
	Notes	¹⁾ If several construction materials are specified per layer, they can be used alternatively				

3 Classification report for EGGER OSB concerning the fire protection effect of a cladding K₂10 and K₂30 according to EN 13501-2 + A1 (2009)

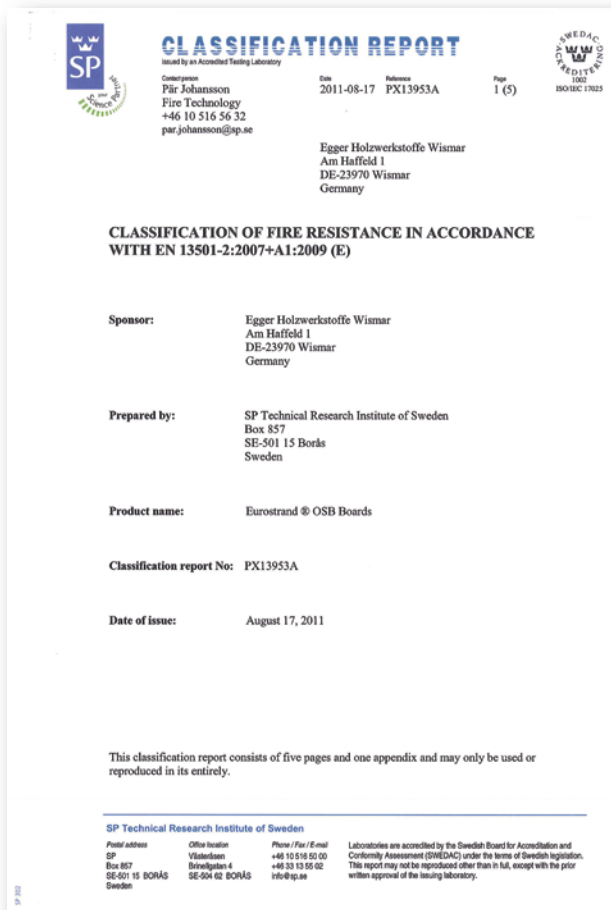
For multi-storey wood construction, the wood frame construction design directive has governed key fire protection requirements since 2002. Here the cladding criterion was introduced for the first time. Sheathing with a structural fire protection effect can also be relevant as a compensating measure in fire protection.

In cooperation with the SP Boras test institute (Sweden) with European accreditation, we have tested our OSB boards according to EN 13501-2 + A1:2009(E) in regards to the cladding criterion. As a result, we were able to obtain the following classifications for EGGER OSB:

- EGGER OSB 3 or OSB 4 TOP, straight edge, thickness ≥ 10 mm: K₁10, K₂10
- EGGER OSB 4 TOP, 2T&G, thickness ≥ 30 mm: K₁10, K₂30

OSB boards can be used in vertical, horizontal or tilted applications. According to requirement K₂10 or K₂30 all substrates (without air gap) are allowable as the substructure.

Screws were used for attachment during the tests.



CLASSIFICATION REPORT
 Issued by an Accredited Testing Laboratory

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Date: 2011-08-17
 Release: PXI13953A
 Page: 1 (5)
 ISO 17025

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CLASSIFICATION OF FIRE RESISTANCE IN ACCORDANCE WITH EN 13501-2:2007+A1:2009 (E)

Sponsor: Egger Holzwerkstoffe Wismar
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Prepared by: SP Technical Research Institute of Sweden
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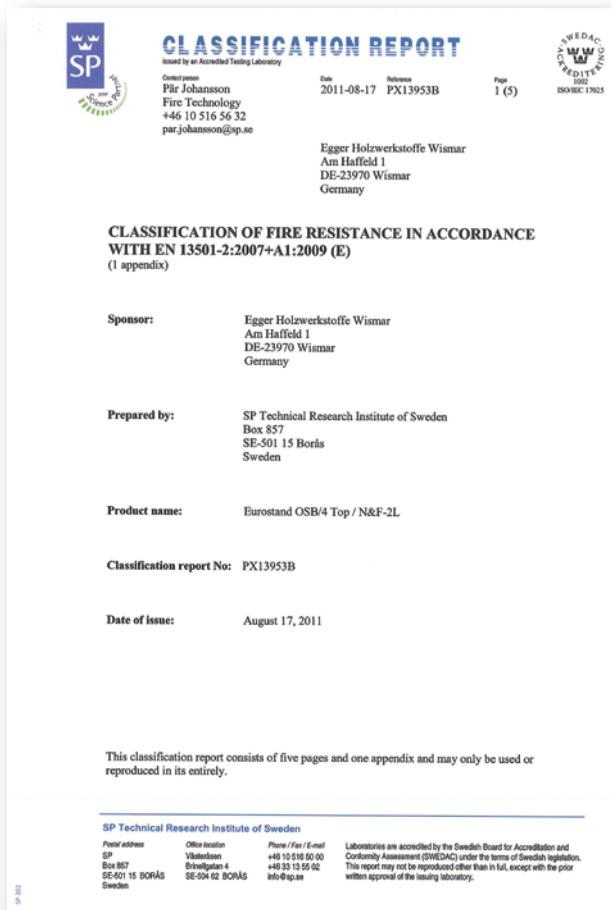
Product name: Eurostrand ® OSB Boards

Classification report No: PXI13953A

Date of issue: August 17, 2011

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 Page: 1 (5)
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CLASSIFICATION OF FIRE RESISTANCE IN ACCORDANCE WITH EN 13501-2:2007+A1:2009 (E)
 (1 appendix)

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Prepared by: SP Technical Research Institute of Sweden
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Product name: Eurostrand OSB/4 Top / N&F-2L

Classification report No: PXI13953B

Date of issue: August 17, 2011

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4 Component penetrations / fire protection bulkheads – Tested fire protection solutions with Hilti

For the solution of the legally required bulkheading of penetrations, the following options are available for timber construction in principle two approaches to a solution:

State of the art solutions

They are carried out according to the Lignum recommendations in Switzerland. For Germany the "Muster-Directive on fire protection requirements for highly fire-retardant components in timber construction". (M-HFH HolzR) states that openings for building services engineering "are made on all sides and throughout from non-combustible building materials" must be dressed. The lining "is to be lined with joint offset, step rebate or groove and to form spring connections" [§3.2 M-HFH HolzR]. "Are connected to the closing of the openings fire protection requirements, such as for [...] pipes or cable penetration seals, a corresponding proof of usability or applicability issued by the building authorities is available [...]". [§3.5 M-HFH HolzR]

Tested solutions

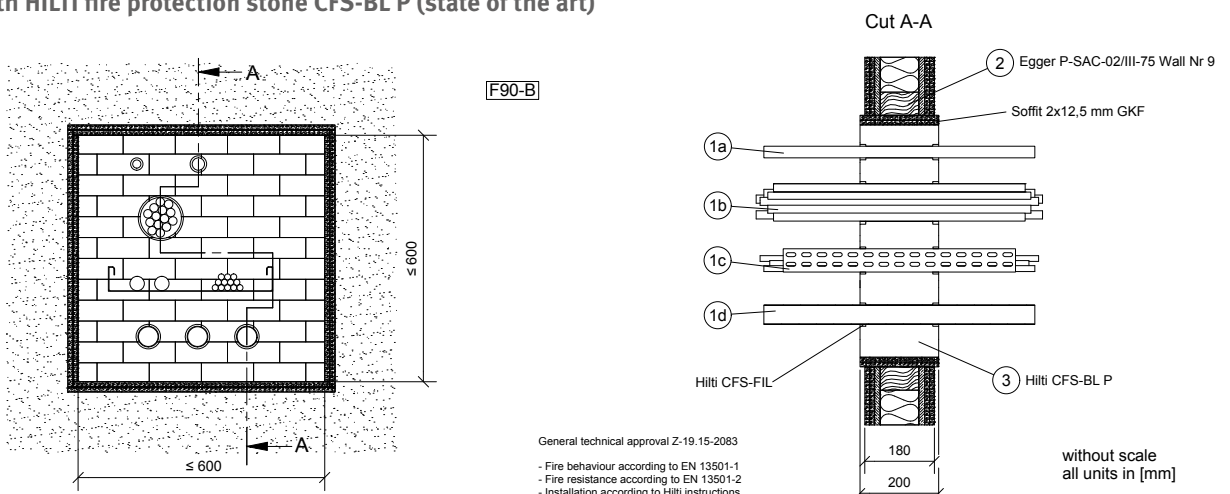
Tested designs based on e.g. ETA / KB / abP (DE) / VKF certificate (CH) for specific timber constructions in combination with Hilti fire protection products can be used with the corresponding proof of suitability can be executed. They speed up the installation on site or in the factory and simplify providing evidence to authorities and experts.


Application areas

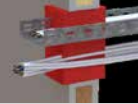

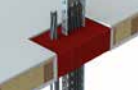

Hilti products offer solutions for simple electrical insulation of cables, cable bundles and cable routes as well as empty tubes and empty tube bundles. For sanitary and heating applications, non-combustible pipes with and without insulation, metal composite pipes and a large number of sewage pipes are covered.

- Fire protection cable sleeve according to ETA-13/0704 or Z-19.53-2192
- Fire protection sleeve according to ETA-14/0085
- Fire protection bandage according to Z-19.53-2210 or ETA-10/0212
- Fire protection foam according to ETA-10/0109

Fire protection in wooden stud walls for electrical applications with HILTI fire protection stone CFS-BL P (state of the art)



		Usability proofs for Hilti fire protection products		
		Germany	Europe	Switzerland
	Fire protection stone CFS-BL P / CFS-BL*)	Z-19.15-2088 Z-19.15-2083 Z-19.15-2112	*) ETA-13/0099	VKF 25015 VKF 24965 VKF 24963 VKF 24897
	Fire protection sleeve CFS-SL1) / CFS-SL GA2)	Z-19.53-2318	1) ETA-11/0153 2) ETA-17/0081	VKF 22948
	Fire protection cable collar CFS-CC	Z-19.53-2282	ETA-13/0704	VKF 27174
	Fire protection foam CFS-F FX / CP660	Z-19.53-2238 Z-19.53-2237	ETA-10/0109	VKF 19720 VKF 19719 VKF 19718 VKF 18805
	Fire protection sleeve CFS-C P / CP644	Z-19.15-1781	ETA-10/0404	VKF 14108
	Fire protection collar CFS-C EL	Z-19.53-2192	ETA-14/0085	VKF 25625
	Fire protection endless collar	Z-19.53-2210	ETA-10/0212	

Egger abP or classification report (KB)	State of the art according to M-HFHolzR	Tested solution from Hilti
Wall components		
P-SAC-02/III-752 – Wall construction 1	●	
P-SAC-02/III-752 – Wall construction 4	●	
P-SAC-02/III-752 – Wall construction 6	●	
P-SAC-02/III-752 – Wall construction 9	●	●
P-SAC-02/III - 804 Ä – F30	●	
P-SAC-02/III - 804 Ä – F60 / F90	●	
KB (HFA) 2586/2018/17	●	
KB (HFA) 2586/2018/20	●	
KB (HFA) 2586/2018/21	●	
KB (HFA) 2586/2018/09	●	
KB (HFA) 2586/2018/10	●	●
KB 3.2/15-013-3	●	
KB 3.2/15-013-4	●	
ceiling/roof components		
P-SAC-02/III - 522	●	
KB (HFA) 1446/2016/01	●	
KB (HFA) 2586/2018/28	●	

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