Floor towards attic (uninhabitable) - ddrtxn07a-00

floor towards attic (uninhabitable), timber frame construction, not suspended, dry, other surface

Performance rating

Fire protection performance	REI	30

maximum span = 5 m; maximum load $E_{d,fi}$ = 3,66 kN/m²
Classified by HFA

Germany

F30

Load $E_{d,fi}$ according to the German certification document

Corresponding proof: DIN 4102-4:2016-05, Tabelle 10.12, Zeile 1 in conjunction with 10.7.5 (to attic no floating screed necessary)

Thermal performance	U	0.19 W/(m²K)
	Diffusion	suitable

Calculated by TUM

Acoustic performance	R_w (C;C$_{tr}$)	42(-2;-6) dB
	$L_{n,w}$ (C$_I$)	

Assessed by Müller-BBM

Mass per unit area	m	40.80 kg/m²

Calculation based on gypsum plaster board type DF
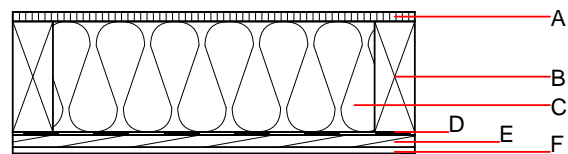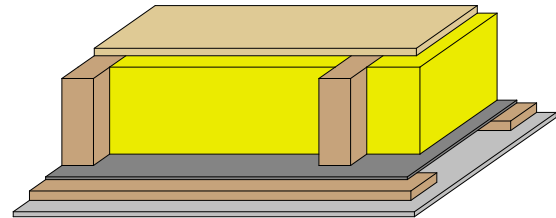
Register of building materials used for this application, cross-section (from outside to inside, dimensions in mm)

	Thickness	Building material	Thermal performance				Reaction to fire
			λ	μ min – max	ρ	c	EN
A	19.0	particleboard	0.130	50 - 100	700	1.700	D
B	220.0	construction timber (80/..; e=625)	0.120	50	450	1.600	D
C	220.0	mineral wool [040; 11; <1000°C]	0.040	1	11	1.030	A1
D		vapour barrier sd≥ 8m			1000		
E	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
F	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
F	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

OI3$_{Kon}$	17.6

Calculated by HFA

Database GaBi (ÖKOBAUDAT)

Built-in renewable materials	kg	28.830
Biogenic carbon in kg CO$_2$-e.	kg CO$_2$	42.030
Energy use of Primary Energy	MJ	377.520
Share of renewable PE	%	26.60

Calculated by TUM

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dataholz.eu – Catalogue of timber building materials, components and component connections reviewed to consider thermal, acoustic, fire performance requirements and ecological drivers for timber construction released by accredited testing institutes.
These datasheets will generally be accepted as proofs of compliance by building authorities.

dataholz.eu

Details of sustainability rating

Database ecoinvent

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO$_2$-e.]	[kg SO$_2$-e.]	[kg PO$_4$-e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.081	0.036	1,43E-6	0.020	

Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]
A1 - A3	60.968	473.735	534.703	316.947	33.674	350.621

Database GaBi (ÖKOBAUDAT)

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO$_2$-e.]	[kg SO$_2$-e.]	[kg PO$_4$-e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.088	0.014	1,22E-6	0.012	
C1 - C4		0.002	0.002	8,58E-8	0.000	
A1 - C4		0.092	0.017	1,32E-6	0.013	

Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]
A1 - A3	99.674	453.983	555.179	261.290	29.218	290.643
C1 - C4	0.369	-447.705	-447.336	9.461	-11.166	-1.705
A1 - C4	100.430	6.538	108.489	277.087	18.104	295.326

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