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Designation: ddrtxn05b-05
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, SP

Floor towards attic (uninhabitable) - ddrtxn05b-05

floor towards attic (uninhabitable), timber frame construction, not suspended, dry, gypsum plasterboard

Performance rating

Fire protection performance	**REI**	60

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

Thermal performance	**U**	0.20 W/(m²K)
	Diffusion	suitable

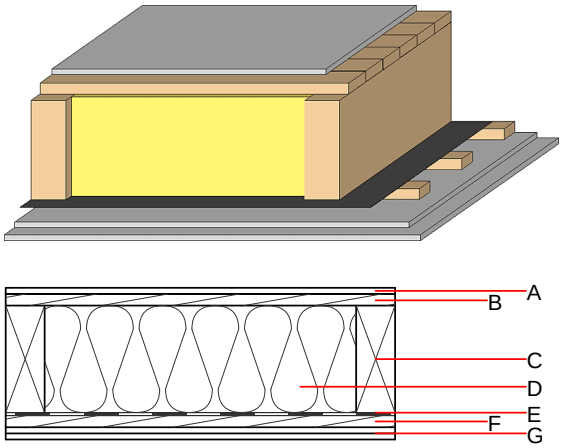
Calculated by HFA

Acoustic performance	**R_w ($C;C_{tr}$)**	48(-4;-9) dB
	$L_{n,w}$ (C_I)	

Assessed by TGM

Mass per unit area	**m**	69.70 kg/m²

Calculation based on GF



Note: e=625

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	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
A	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
B	24.0	planking spruce wood	0.120	50	450	1.600	D
C	220.0	spruce wood floor joists (80/*); e=*	0.120	50	450	1.600	D
D	220.0	cellulose fibre [040; E]	0.040	1 - 2	55	2.000	E
E		vapour barrier sd≥ 6m			1000		
F	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
G	25.0	gypsum plaster board type DF (2x12,5 mm) or	0.250	10	800	1.050	A2
G	25.0	gypsum fibre board (2x12,5 mm)	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

$OI3_{Kon}$	13.0

Calculated by HFA

Details of sustainability rating

Database ecoinvent

Lifecycle (Phases)	GWP [kg CO_2-e.]	AP [kg SO_2-e.]	EP [kg PO_4-e.]	ODP [kg R11-e.]	POCP [kg Ethen-e.]	
A1 - A3		0.078	0.034	1,66E-6	0.018	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	94.305	571.882	666.188	266.678	4.459	271.138