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Intermediate floor - gdrtxa03b-10
intermediate floor, timber frame construction, suspended, dry, without filling, other surface

Performance rating

Fire protection performance	REI	60
Classified by HFA		
Germany		
Load $E_{d,fi}$ according to the German certification document		

Thermal performance	U	
	Diffusion	suitable

Acoustic performance	R_w (C;C_{tr})	63(-3;-10) dB
	$L_{n,w}$ (C_I)	56(0)

Mass per unit area	m	78.10 kg/m^2
Calculation based on gypsum plaster board type DF		
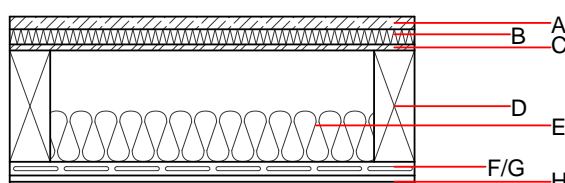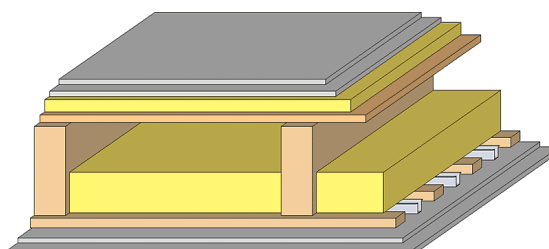
Register of building materials used for this application, cross-section (from outside to inside, dimensions in mm)

	Thickness	Building material	Thermal performance				Reaction to fire
			λ	μ min – max	ρ	c	EN
A	25.0	dry screed	0.210	8	900	1.050	A1
B	30.0		0.040	1	180	1.030	A1
C	22.0	OSB	0.130	200	600	1.700	D
D	220.0	construction timber (80/..; e=625) (80/..; e=*)	0.120	50	450	1.600	D
E	100.0	Wood fibre insulation [039; 45]	0.039	1 - 2	45	2.100	E
F	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
G	27.0	resilient channel (placed between open formwork)	0.156				
H	25.0	gypsum plaster board type DF (2x12,5 mm) or	0.250	10	800	1.050	A2
H	25.0	gypsum fibre board (2x12,5 mm)	0.320	21	1000	1.100	A2

Sustainability rating (per m^2)

Database ecoinvent

OI3$_{Kon}$	32.5
Calculated by HFA	

Database GaBi (ÖKOBAUDAT)

Built-in renewable materials	kg	32.390
Biogenic carbon in kg CO$_2$-e.	kg CO$_2$	48.080
Energy use of Primary Energy	MJ	878.810
Share of renewable PE	%	27.33

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Designation: gdrtxa03b-10
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, SP

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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		0.141	0.053	2,50E-6	0.040	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	104.647	516.995	621.641	484.435	26.477	510.912

Database GaBi (ÖKOBAUDAT)

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		0.125	0.022	7,85E-7	0.026	
C1 - C4		0.006	0.002	8,39E-8	0.001	
A1 - C4		0.134	0.025	8,83E-7	0.027	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	237.430	708.240	947.100	604.070	30.710	634.910
C1 - C4	2.030	-697.180	-695.150	23.890	-23.150	0.740
A1 - C4	240.210	11.580	253.220	638.600	7.660	646.390

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.

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