Intermediate floor - gdrtxa03b-13
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})	64(-3;-10) dB
	$L_{n,w}$ (C_I)	55(0)

Mass per unit area	m	79.30 kg/m^2
Calculation based on gypsum plaster board type DF		
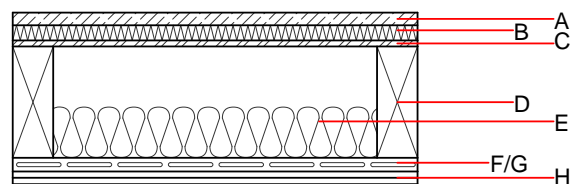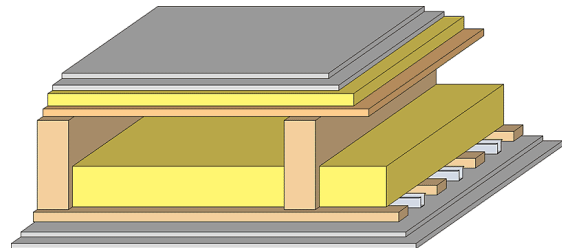
Register of building materials used for this application, cross-section (from outside to inside, dimensions in mm)

	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	240.0	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	33.650
Biogenic carbon in kg CO$_2$-e.	kg CO$_2$	49.920
Energy use of Primary Energy	MJ	887.840
Share of renewable PE	%	27.59

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.

Page 1

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Designation: gdrtxa03b-13
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, SP

Page 2

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		0.142	0.054	2,52E-6	0.040	

Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]
A1 - A3	108.396	537.959	646.355	488.798	26.477	515.275

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		0.126	0.022	8,22E-7	0.027	
C1 - C4		0.006	0.002	8,70E-8	0.001	
A1 - C4		0.135	0.025	9,24E-7	0.028	

Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]
A1 - A3	242.160	730.030	973.720	608.120	30.720	638.990
C1 - C4	2.040	-718.960	-716.920	24.130	-23.170	0.970
A1 - C4	244.960	11.590	258.080	642.880	7.660	650.690

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Page 2