Intermediate floor - gdrnxa07b-12
intermediate floor, timber frame construction, suspended, wet, with filling, other surface

Performance rating

Fire protection performance   **REI**   60

maximum span = 5 m; maximum load $E_{d,fi}$ = 3,66 kN/m² (without floor construction; with ceiling beam 80/200)
Classified by HFA
Classified by HFA

Germany

F60

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

Corresponding proof: DIN 4102-4:2016-05, Tabelle 10.12, Zeile 4

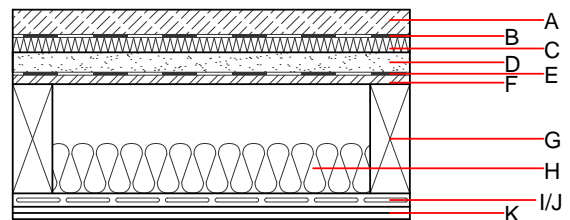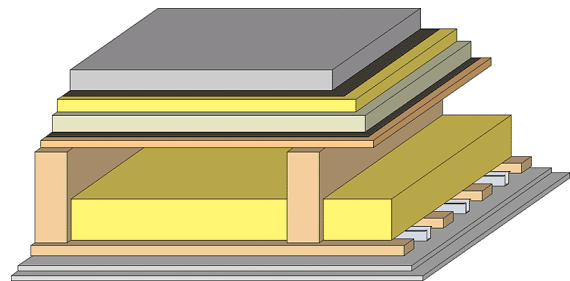| **Thermal performance**	**U**	
	Diffusion	suitable

Calculated by HFA

Acoustic performance	R_w (C;C_{tr})	70(-1;-6) dB
	$L_{n,w}$ (C_I)	41(1)

Assessed by Müller-BBM

Mass per unit area	**m**	227.60 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	λ	μ min − max	ρ	c	EN
A	50.0	cement screed or anhydrite screed	1.330	50 - 100	2000	1.080	A1
B		plastic separation layer	0.200	100000	1400	1.400	E
C	30.0	impact sound absorbing subflooring MW-T	0.035	1	68	1.030	A1
D	40.0	fill loose	0.700	1	1800	1.000	A1
E		trickling protection					E
F	22.0	OSB	0.130	200	600	1.700	D
G	220.0	construction timber (80/..; e=625)	0.120	50	450	1.600	D
H	100.0	Wood fibre insulation [039; 45]	0.039	1 - 2	45	2.100	E
I		spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
J	27.0	resilient channel placed between cladding with spacing	0.156				
K	25.0	gypsum plaster board type DF (2x...) or	0.250	10	800	1.050	A2
K	25.0	gypsum fibre board (2x...)	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

$OI3_{Kon}$	39.9

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	915.170
Share of renewable PE	%	26.79

Calculated by TUM

dataholz.eu

Designation: gdrnxa07b-12
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		0.160	0.076	2,93E-6	0.029	

Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]
A1 - A3	122.677	566.129	688.806	591.718	30.299	622.017

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		0.143	0.024	7,86E-7	0.027	
C1 - C4		0.017	0.004	8,48E-8	0.002	
A1 - C4		0.166	0.029	8,85E-7	0.029	

Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]
A1 - A3	241.188	708.244	950.858	624.826	64.928	689.890
C1 - C4	3.203	-697.178	-692.836	34.558	-23.154	27.004
A1 - C4	245.150	11.584	259.784	670.015	41.878	735.769

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 2