Intermediate floor - gdrnxa08a-03
intermediate floor, timber frame construction, suspended, wet, with filling, 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

Thermal performance | U | 0.25 W/(m²K)
| Diffusion | suitable

energy storage capacity per unit area above: 103,9 kg/m²
Calculated by HFA

Acoustic performance | R_w (C;C_{tr}) | 70(-1;-5) dB
| $L_{n,w}$ (C_I) | 41(1)

Mass per unit area | m | 219.00 kg/m²

Calculation based on gypsum plaster board type DF
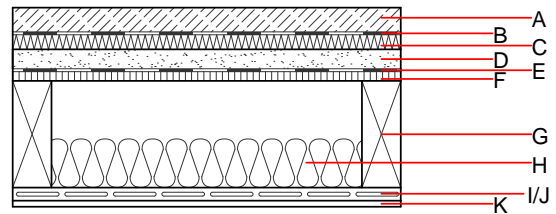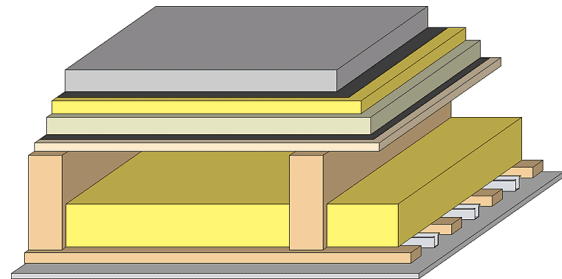
Note: e=625;

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	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 [s'=10 MN/m³]	0.035	1	68	1.030	A1
D	40.0	fill	0.700	1	1800	1.000	A1
E		trickling protection					E
F	19.0	particleboard	0.130	50 - 100	700	1.700	D
G	220.0	construction timber (80/..; e=*)	0.120	50	450	1.600	D
H	100.0	mineral wool [035; 50; <1000°C]	0.035	1	50	1.030	A1
I	24.0	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	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
K	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

OI3$_{Kon}$ | 52.0

Calculated by HFA

dataholz.eu

Designation: gdrnxa08a-03
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		0.200	0.096	3,35E-6	0.035	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	85.357	473.735	559.092	718.529	36.859	755.389

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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