## Intermediate floor - gdrtxn02b-07

intermediate floor, timber frame construction, not suspended, dry, with filling, other surface

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 | 0.27 W/(m²K) |
| | Diffusion | suitable |

Calculated by HFA

| **Acoustic performance** | R_w (C;C_{tr}) | 61(-4;-11) dB |
| | $L_{n,w}$ (C_I) | 61(1) |

Assessed by TGM

| **Mass per unit area** | m | 144.20 kg/m² |

Calculation based on GF
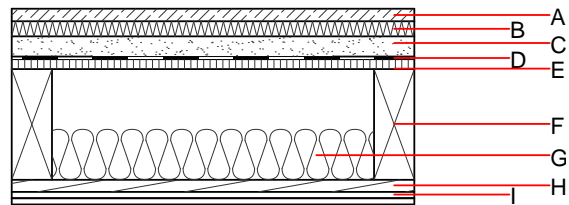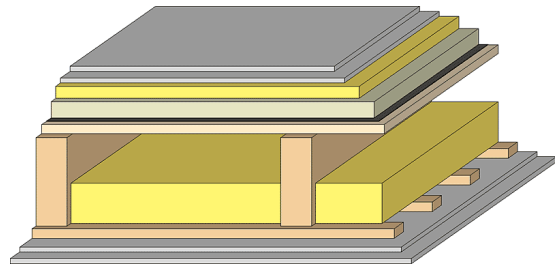
Note: e=625;

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	25.0	dry screed	0.210	8	900	1.050	A1
B	30.0	impact sound absorbing subflooring EPS-T	0.040	20 - 50	11	1.450	E
C	40.0	fill	0.700	1	1800	1.000	A1
D		trickling protection					E
E	19.0	particleboard	0.130	50 - 100	700	1.700	D
F	220.0	construction timber (80/..; e=*)	0.120	50	450	1.600	D
G	100.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1
H	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
I	25.0	gypsum plaster board type DF (2x12,5 mm) or	0.250	10	800	1.050	A2
I	25.0	gypsum fibre board (2x12,5 mm)	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

| $OI3_{Kon}$ | 24.9 |

Calculated by HFA

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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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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		0.096	0.040	2,18E-6	0.024	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	66.914	473.735	540.650	432.326	46.237	478.564

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