

Intermediate floor - gdrta02b-05

intermediate floor, timber frame construction, suspended, dry, with filling, other surface

Performance rating

Fire protection performance REI 60/K₂60

Classified by HFA

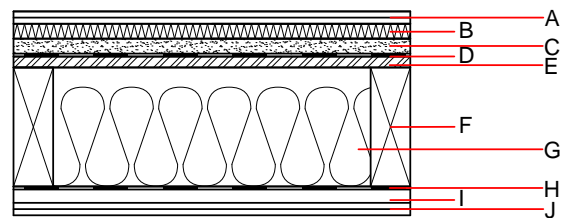
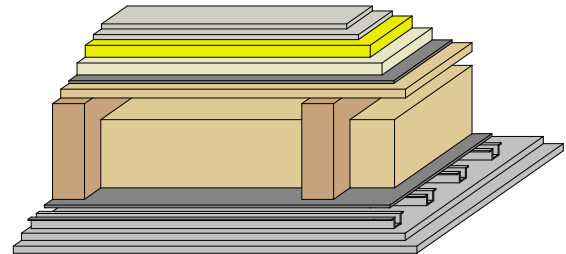
Germany

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

Thermal performance U
Diffusion

Acoustic performance R_w (C;C_{tr}) 78(-1;-7) dB
 L_{n,w} (C_i) 38(3)

Mass per unit area m 190.70 kg/m²



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 EN
			λ	μ min – max	ρ	c	
A	25.0	dry screed	0.210	8	900	1.050	A1
B	20.0	impact sound absorbing subflooring MW-T [s' = 10 MN/m³]	0.035	1	68	1.030	A1
C	60.0	fill	0.700	1	1500	1.000	A1
D	0.2	trickling protection					E
E	22.0	OSB	0.130	200	600	1.700	D
F	240.0	construction timber (80/...; e=*)	0.120	50	450	1.600	D
G	200.0	mineral wool [040; 30; ≥1000°C]	0.040	1	30	1.030	A1
H	0.2	trickling protection					E
I	27.0	resilient channel cladding with spacing of cladding boards(24/100); a=400					
J	36.0	gypsum plaster board type DF or	0.250	10	800	1.050	A2

Sustainability rating (per m²)

Database ecoinvent

Ol3_{Kon} 36.1

Calculated by HFA

Database GaBi (ÖKOBAUDAT)

Built-in renewable materials	kg	34.440
Biogenic carbon in kg CO ₂ -e.	kg CO ₂	51.130
Energy use of Primary Energy	MJ	1257.590
Share of renewable PE	%	27.89

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		0.146	0.064	3,29E-6	0.027	
Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	119.178	609.464	728.643	586.936	37.054	623.990

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		0.150	0.028	6,92E-7	0.034	
C1 - C4		0.018	0.004	9,24E-8	0.002	
A1 - C4		0.172	0.033	8,06E-7	0.036	
Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	344.060	891.130	1236.100	832.730	48.020	880.860
C1 - C4	5.530	-880.270	-874.750	58.160	-41.390	16.770
A1 - C4	350.740	11.370	363.020	906.860	6.790	913.750