

Intermediate floor - gdrta03b-02

intermediate floor, timber frame construction, suspended, dry, without filling, other surface

Performance rating

Fire protection performance REI 60

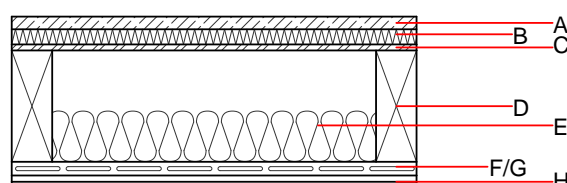
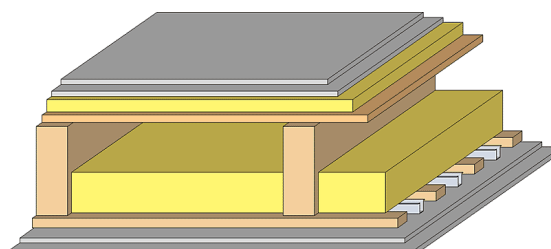
maximum span = 5 m; maximum load $E_{d,fi}$ = 3,66 kN/m²
 Classified by HFA

Thermal performance U Diffusion 0.26 W/(m²K)
 suitable

Acoustic performance R_w (C ; C_{tr}) 65(-2;-9) dB
 $L_{n,w}$ (C_i) 51(2)

Mass per unit area m 73.60 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 EN
			λ	μ min – max	ρ	c	
A	25.0	dry screed	0.210	8	900	1.050	A1
B	30.0	impact sound absorbing subflooring MW-T	0.035	1	68	1.030	A1
C	18.0	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	mineral wool [040; ≥ 16 ; <1000°C]	0.040	1	16	1.030	A1
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 m²)

Database ecoinvent

013_{Kon} 34.2

Calculated by HFA

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	0.056	2,55E-6	0.040	
Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	96.028	427.382	523.411	485.294	16.832	502.125