

Intermediate floor - gdrnxa04b-08

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

Performance rating

Fire protection performance REI 60
maximum span = 5 m; maximum load $E_{d,fi} = 3,66 \text{ kN/m}^2$
Classified by HFA

Thermal performance U 0.27 W/(m²K)
Diffusion suitable

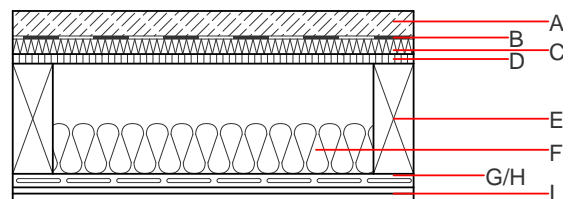
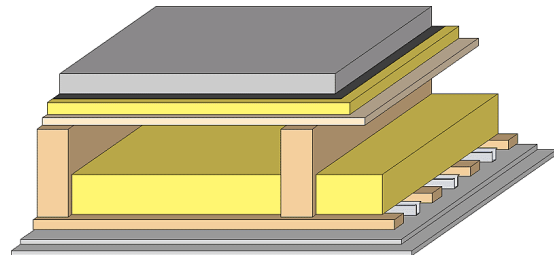
Calculated by HFA

Acoustic performance $R_w (C; C_{tr})$ 63(-2;-7) dB
 $L_{n,w} (C_i)$ 54(0)

Assessed by TGM

Mass per unit area m 161.80 kg/m²

Calculation based on GF



Note: e=400;

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	50.0	anhydrite screed or cement screed	0.700	10	2200	1.300	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	19.0	particleboard	0.130	50 - 100	700	1.700	D
E	220.0	construction timber (80/...; e=*)	0.120	50	450	1.600	D
F	100.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1
G	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
H	27.0	resilient channel (placed between open formwork)	0.156				
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

OL3_{Kon} 42.2

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		0.167	0.082	2,95E-6	0.034	
Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	104.387	603.449	707.836	640.886	33.037	673.923