

Intermediate floor - gdrnxn04b-04

intermediate floor, timber frame construction, not suspended, wet, without filling, other surface

Performance rating

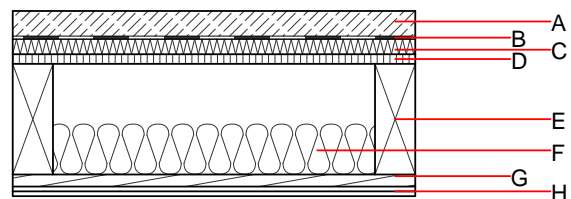
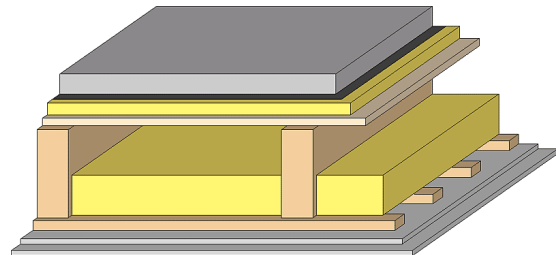
Fire protection performance
REI 60
maximum span = 5 m; maximum load $E_{d,fi} = 3,66 \text{ kN/m}^2$
Classified by HFA

Thermal performance
U Diffusion 0.26 $\text{W}/(\text{m}^2\text{K})$
suitable
Calculated by HFA

Acoustic performance
 $R_w (C; C_{tr})$ 58(-5;-12) dB
 $L_{n,w} (C_i)$ 63(0)

Assessed by TGM

Mass per unit area m 155.50 kg/m^2
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	$\mu \text{ min} - \text{max}$	ρ	c	
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	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 [038; ≥ 33 ; $\geq 1000^\circ\text{C}$]	0.038	1	33	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	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 m^2)

Database ecoinvent

013_{Kon} 41.3

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		0.163	0.071	2,53E-6	0.043	
Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	79.228	473.735	552.963	580.055	33.037	613.092