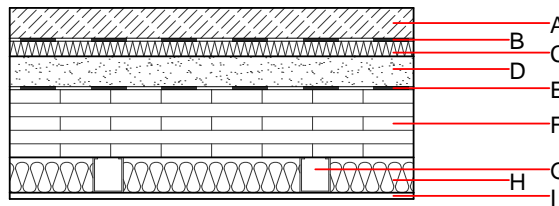
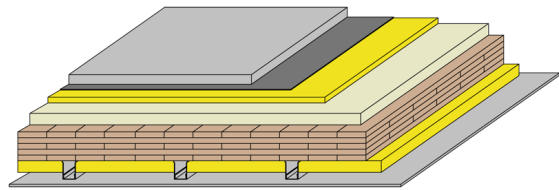


Intermediate floor - gdmnx02a-00

intermediate floor, solid wood construction, suspended, wet, with filling, other surface

Performance rating

Fire protection performance	REI	60
maximum span = 5 m; maximum load $E_{d,fi} = 5 \text{ kN/m}^2$ Classified by HFA		
Thermal performance	U	0.25 $\text{W}/(\text{m}^2\text{K})$
	Diffusion	suitable
Calculated by HFA		
Acoustic performance	$R_w (C;C_{tr})$	61 (-2;-8) dB
	$L_{n,w} (C_i)$	53(3)
Assessed by TU-GRAZ		
Mass per unit area	m	307.90 kg/m^2
Calculation based on gypsum plaster board type DF		



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	60.0	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 [$s' = 35\text{MN}/\text{m}^3$]	0.035	1	120	1.030	A2
D	60.0	non-bonded chippings	0.700	1	1700	1.000	A1
E		trickling protection					E
F	140.0	cross laminated timber $\geq 140,0$; at least 5-layers, top layer at least 26 mm)	0.130	50	500	1.600	D
G	70.0	acoustic hanger (suspension); $e=410$					
H	60.0	mineral wool [040; 20]	0.040	1	20	1.030	A2
I	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
I	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m^2)

Database ecoinvent

Ol3_{Kon}	59.4
calculated with gypsum plaster fire protection board (GKF/DF); this data includes 3-, 5-, and 7-ply cross laminated timber elements; 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		0.271	0.115	4,11E-6	0.081	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	60.102	957.600	1017.702	863.597	31.697	895.294