

Intermediate floor - gdmtda04a-00

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

Performance rating

Fire protection performance REI 90
 maximum span = 5 m; maximum load $E_{d,fi} = 6,5 \text{ kN/m}^2$ (without floor construction)
 Classified by HFA

Thermal performance U Diffusion 0.24 $\text{W}/(\text{m}^2\text{K})$
 suitable

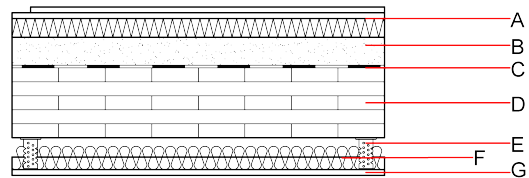
Calculated by HFA

Acoustic performance $R_w (C; C_{tr})$ 70(-10;-19) dB
 $L_{n,w} (C_i)$ 49(4)

$[C_{150-2500}] = [9]$ dB
 Assessed by HFA

Mass per unit area m 221.20 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	65.0	m' approx. 37 kg/m^2					
B	60.0	non-bonded chippings, m' approx. 93 kg/m^2	0.700	1	1550	1.000	A1
C		trickling protection					E
D	160.0	cross laminated timber, first layer minimum 40mm	0.130	50	500	1.600	D
E	70.0	acoustic direct hanger with CD-profile (a=400)					
F	50.0	mineral wool [040; ≥ 16 ; $< 1000^\circ\text{C}$]	0.040	1	16	1.030	A1
G	12.5	gypsum plaster board type DF	0.250	10	800	1.050	A2
G	12.5	gypsum fibre board or	0.320	21	1000	1.100	A2

Sustainability rating (per m^2)

Database ecoinvent

OI_{3kon} 64.2

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		0.313	0.117	5,02E-6	0.093	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	142.156	1094.400	1236.556	951.037	40.230	991.267