

Intermediate floor - gdsnxx04-02

intermediate floor, exposed beams, without lining, wet, with filling, wooden surface

Performance rating

Fire protection performance REI 30

maximum span = 5 m; maximum load $E_{d,fi} = 5,5 \text{ kN/m}^2$ (without floor construction; with exposed beams 180/240)

Classified by HFA

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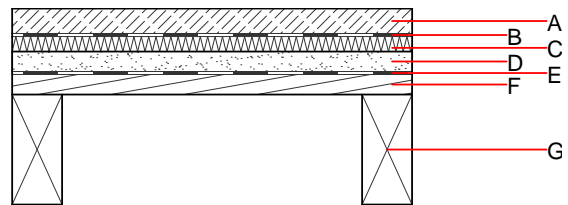
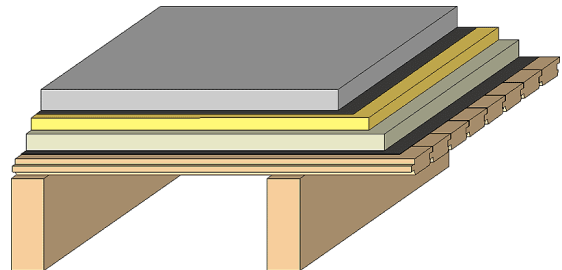
Thermal performance U Diffusion 0.61 $\text{W}/(\text{m}^2\text{K})$
suitable

Calculated by HFA

Acoustic performance R_w (C;C_{tr}) 66(-1;-5) dB
 $L_{n,w}$ (C_i) 58(-6)

Assessed by TGM

Mass per unit area m 349.70 kg/m^2



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	70.0	cement 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 [$s' = 10 \text{ MN/m}^3$]	0.033	1	70	1.030	A1
D	100.0	fill	0.700	1	1800	1.000	A1
E		trickling protection					E
F	40.0	planking spruce wood tongue and groove fire resistant planking	0.120	50	450	1.600	D
G		construction timber floor joists (in acc. with structural design)	0.120	50	450	1.600	D

Sustainability rating (per m^2)

Database ecoinvent

013_{Kon} 29.3

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		0.126	0.064	1,96E-6	0.026	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	109.828	484.789	594.616	424.502	7.645	432.147