

Intermediate floor - gdrnxa03a-01

intermediate floor, timber frame construction, suspended, wet, with filling, other surface

Performance rating

Fire protection performance REI 30

maximum span = 5 m; maximum load $E_{d,fi} = 2,62 \text{ kN/m}^2$
 Classified by HFA

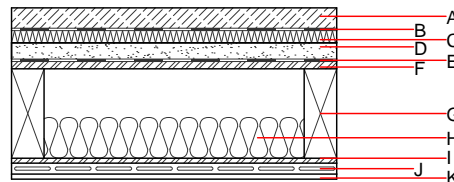
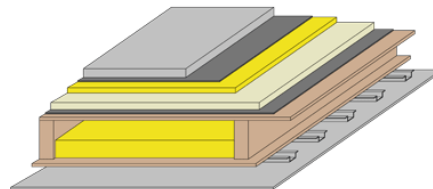
Thermal performance U Diffusion 0.25 $\text{W}/(\text{m}^2\text{K})$
 suitable

Calculated by HFA

Acoustic performance $R_w (C; C_{tr})$ 67(-9; 18) dB
 $L_{n,w} (C_i)$ 50(6)

Assessed by TGM

Mass per unit area m



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	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	40.0	fill	0.700	1	1800	1.000	A1
E		trickling protection					E
F	18.0	OSB	0.130	200	600	1.700	D
G	200.0	construction timber (80/...; e=*)	0.120	50	450	1.600	D
H	100.0	mineral wool [040; ≥ 16 ; $< 1000^\circ\text{C}$]	0.040	1	16	1.030	A1
I	12.0	OSB	0.130	200	600	1.700	D
J	27.0	resilient channel					
K	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
K	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m^2)

Database ecoinvent

$O13_{kon}$ 41.9

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		0.169	0.080	2,87E-6	0.030	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	119.715	502.666	622.380	589.334	29.327	618.660