

Intermediate floor - gdrnxa11b-00

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

Performance rating

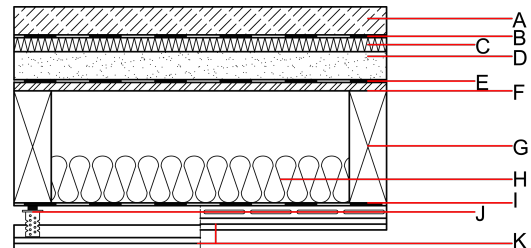
Fire protection performance REI 60
 maximum span = 5 m; maximum load $E_{d,fi} = 3,66 \text{ kN/m}^2$ (without floor construction, with ceiling beam 80/200)
 Classified by HFA

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

Acoustic performance $R_w (C; C_{tr})$ 86(-8;-17) dB
 $L_{n,w} (C_i)$ 38(-2)
 Assessed by HFA

Mass per unit area m 305.50 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	2500	1.080	
B		plastic separation layer	0.200	100000	1400	1.400	E
C	30.0	impact sound absorbing subflooring MW-T [$s' = 10 \text{ MN}/\text{m}^3$]	0.033	1	70	1.030	A1
D	60.0	elastic bonded (PUR) chippings, $m' \text{ approx. } 90 \text{ kg}/\text{m}^2$ line split $m' = 90 \text{ kg}/\text{m}^2$	0.700	1	1500	1.000	A1
E		trickling protection					E
F	18.0	OSB	0.130	200	600	1.700	D
G	240.0	(80/..; e=625)	0.120	50	450	1.600	D
H	100.0	mineral wool [038; ≥ 30 ; $\geq 1000^\circ\text{C}$]	0.038	1	30	1.030	A1
I		trickling protection					E
J	27.0	resilient channel (a=400)	0.156				
K	25.0	gypsum plaster board type DF	0.250	10	800	1.050	A2
K	25.0	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m^2)

Database ecoinvent

$OI3_{Kon}$ 50.8

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		0.207	0.097	3,57E-6	0.040	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	162.089	714.564	876.653	734.838	52.316	787.154