

Intermediate floor - gdmnxn02-05

intermediate floor, solid wood construction, without lining, wet, with filling, wooden surface

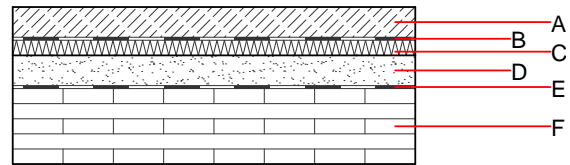
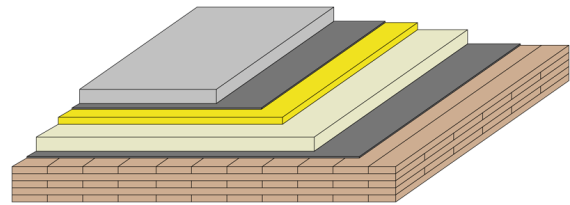
Performance rating

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 0.41 $\text{W}/(\text{m}^2\text{K})$ suitable
 Calculated by HFA

Acoustic performance $R_w (C; C_{tr})$ 74(-2;-7) dB
 $L_{n,w} (C_i)$ 47(2)
 $[C_{150-2500}] = [4]$ dB
 Assessed by HFA

Mass per unit area m 325.70 kg/m^2



Note: D: fill m' approx. 93 kg/m^2 ; F: first layer minimum 40 mm

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	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 [$s' = 10 \text{ MN}/\text{m}^3$]	0.033	1	70	1.030	A1
D	60.0	non-bonded chippings, m' approx. 93 kg/m^2	0.700	1	1550	1.000	A1
E		trickling protection					E
F	160.0	cross laminated timber, first layer minimum 40mm	0.130	50	500	1.600	D

Sustainability rating (per m^2)

Database ecoinvent

$OI3_{Kon}$ 53.2

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		0.249	0.112	4,09E-6	0.069	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	61.362	1094.400	1155.762	840.091	52.971	893.062