Intermediate floor - gdmnxa03a-02
intermediate floor, solid wood construction, suspended, wet, with filling, other surface

Performance rating

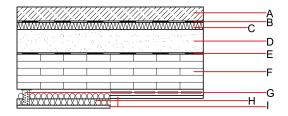|		
Fire protection performance	REI	90

maximum span = 5 m; maximum load $E_{d,fi}$ = 6,5 kN/m² (without floor construction)
Classified by HFA

Thermal performance	U	0.26 W/(m²K)
	Diffusion	suitable

Calculated by HFA

Acoustic performance	R_w (C;C_{tr})	76(-5;-12) dB
	$L_{n,w}$ (C_I)	46(2)

[$C_{I50-2500}$] = [7] dB
Assessed by HFA

Mass per unit area	m	340.20 kg/m²

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
			λ	μ min – max	ρ	c	EN
A	60.0	cement screed m' ca. 150 kg/m²	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 MN/m³]	0.033	1	70	1.030	A1
D	60.0	elastic bonded (PUR) chippings, m' approx. 98 kg/m²	0.700	1	1600	1.000	A1
E		trickling protection					E
F	160.0	cross laminated timber 5-ply (first layer minimum 40 mm)	0.130	50	500	1.600	D
G	70.0	acoustic direct hanger with CD-profile (a=400)					
H	50.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1
I	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
I	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

OI3$_{Kon}$	64.1

Calculated by HFA

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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		0.285	0.129	4,81E-6	0.074	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	67.664	1094.400	1162.064	976.332	52.971	1029.303

dataholz.eu – Catalogue of timber building materials, components and component connections reviewed to consider thermal, acoustic, fire performance requirements and ecological drivers for timber construction released by accredited testing institutes.
These datasheets will generally be accepted as proofs of compliance by building authorities.

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