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Designation: gdsnxn01a-01
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, PLB

Intermediate floor - gdsnxn01a-01

intermediate floor, timber frame construction, directly, wet, with filling, wooden surface

Performance rating

Fire protection performance	**REI**	30

maximum span = 5 m; maximum load $E_{d,fi}$ = 3,66 kN/m²
Classified by HFA

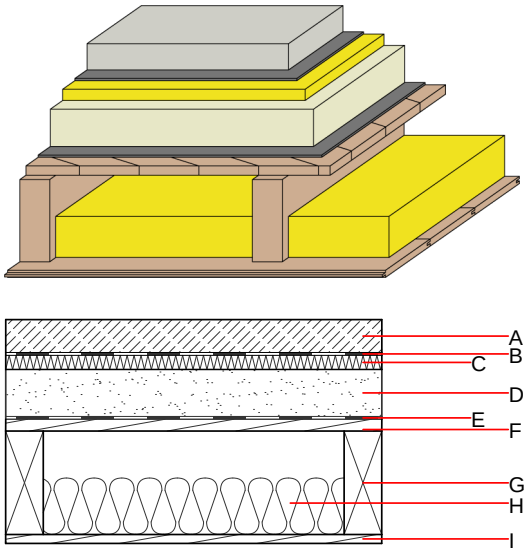
Thermal performance	**U**	0.21 W/(m²K)
	Diffusion	suitable

Calculated by HFA

Acoustic performance	**R_w ($C;C_{tr}$)**	65(-1;-6) dB
	$L_{n,w}$ (C_I)	51(2)

Assessed by TGM

Mass per unit area	**m**	355.20 kg/m²



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	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 MN/m³]	0.033	1	70	1.030	A1
D	100.0	fill loose	0.700	1	1800	1.000	A1
E		trickling protection					E
F	25.0	planking spruce wood diagonal	0.120	50	450	1.600	D
G	240.0	construction timber (80/..; e=800)	0.120	50	450	1.600	D
H	120.0	mineral wool [035; ≥23; ≥1000°C]	0.035	1	23	1.030	A1
I	19.0	planking profile C	0.120	50	450	1.600	

Sustainability rating (per m²)

Database ecoinvent

$OI3_{Kon}$	36.8

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		0.166	0.075	2,21E-6	0.044	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	119.463	556.852	676.315	495.921	7.645	503.566