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Designation: gdsnxx04-01
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, PLB

Intermediate floor - gdsnxx04-01

intermediate floor, exposed beams, without lining, wet, with filling, wooden surface

Performance rating

Fire protection performance	**REI**	30

maximum span = 5 m; maximum load $E_{d,fi}$ = 5,5 kN/m² (without floor construction; with exposed beams 180/240)
Classified by IBS
Classified by HFA

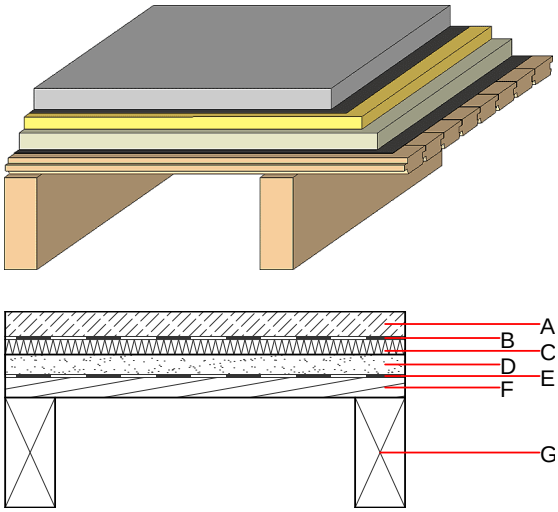
Thermal performance	**U**	0.76 W/(m²K)
	Diffusion	suitable

Calculated by HFA

Acoustic performance	**R_w (C_i;C_{tr})**	62(-1;-7) dB
	$L_{n,w}$ (C_I)	61(-4)

Assessed by TGM

Mass per unit area	**m**	199.90 kg/m²



Note: [0,044]; 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
			λ	μ min – max	ρ	c	EN
A	50.0	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 EPS-T	0.040	20 - 50	11	1.450	E
D	40.0	fill	0.700	1	1800	1.000	A1
E		trickling protection					E
F	40.0	planking spruce wood tongue and groove fire resistant planking	0.120	50	450	1.600	D
G		construction timber floor joists (in acc. with structural design)	0.120	50	450	1.600	D

Sustainability rating (per m²)

Database ecoinvent

$OI3_{Kon}$	16.2

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		0.078	0.039	1.10E-6	0.023	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	99.849	484.789	584.638	269.452	20.845	290.296