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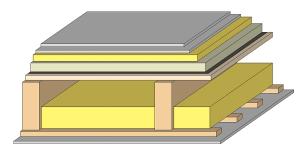## Intermediate floor - gdrtxn01a-09
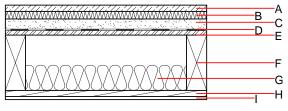
intermediate floor, timber frame construction, not suspended, dry, with filling, other surface

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	0.27 W/(m²K)
	Diffusion	suitable

Calculated by HFA

Acoustic performance	R_w (C;C_{tr})	59(-6;-13) dB
	$L_{n,w}$ (C_I)	65(4)

EPS-F with a dynamic stiffness of s' ≤ 40MN/m³.
Assessed by TGM

Mass per unit area	m	132.70 kg/m²

Calculation based on GF

Note: 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	25.0	dry screed	0.210	8	900	1.050	A1
B	30.0	Polystyrene EPS-W [0,041]	0.041	20 - 50	15	1.450	E
C	40.0	fill	0.700	1	1800	1.000	A1
D		trickling protection					E
E	18.0	OSB	0.130	200	600	1.700	D
F	220.0	construction timber (80/..; e=*)	0.120	50	450	1.600	D
G	100.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1
H	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
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$_{Kon}$	21.0

Calculated by HFA

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Designation: gdrtxn01a-09
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, SP

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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		0.091	0.037	1,97E-6	0.022	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	93.247	455.553	548.800	353.476	33.032	386.507

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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