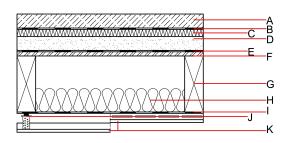## Intermediate floor - gdrnxa11a-00
intermediate floor, timber frame construction, suspended, wet, with filling, other surface

Performance rating

Fire protection performance	REI	30

maximum span = 5 m; maximum load $E_{d,fi}$ = 3,66 kN/m² (without floor construction, with ceiling beam 80/200)
Classified by HFA

Thermal performance	U	0.26 W/(m²K)
	Diffusion	suitable

Calculated by HFA

Acoustic performance	R_w (C;C_{tr})	83(-9;-17) dB
	$L_{n,w}$ (C_I)	42(2)

Assessed by HFA

Mass per unit area	m	295.50 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 or anhydrite screed	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. 90 kg/m² line split m'=90 kg/m²	0.700	1	1500	1.000	A1
E		trickling protection					E
F	18.0	OSB	0.130	200	600	1.700	D
G	240.0	construction timber (80/..; e=625)	0.120	50	450	1.600	D
H	100.0	mineral wool [038; ≥30; ≥1000°C]	0.038	1	30	1.030	A1
I		trickling protection					E
J	27.0	resilient channel (a=400)	0.156				
K	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
K	12.5	gypsum plaster board type DF	0.250	10	800	1.050	A2

Sustainability rating (per m²)

Database ecoinvent

OI3$_{Kon}$	48.4

Calculated by HFA

dataholz.eu

Designation: gdrnxa11a-00
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		0.202	0.095	3,29E-6	0.040	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	159.805	714.564	874.369	694.556	52.316	746.873

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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