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gdrnxa05b-10 8/2/23 Holzforschung Austria HFA, PLB

Intermediate floor - gdrnxa05b-10

intermediate floor, timber frame construction, suspended, wet, without filling, other surface

Performance rating

kN∕m² (without floor)∕200)

F60

Load $E_{d,\rm fi}$ according to the German certification document Corresponding proof: DIN 4102-4:2016-05, Tabelle 10.12, Zeile 4

Thermal performance	U Diffusion	suitable
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	58(-1;-7) dB 60(0)
Assessed by Müller-BBM		
Mass per unit area	m	170.70 kg/m ²

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	с	EN
А	50.0	anhydrite screed or cement screed	0.700	10	2200	1.300	A1
В		plastic separation layer	0.200	100000	1400	1.400	E
С	30.0	impact sound absorbing subflooring MW-T	0.035	1	68	1.030	A1
D	22.0	OSB	0.130	200	600	1.700	D
Е	220.0	construction timber (80/; e=625)	0.120	50	450	1.600	D
F	100.0	Wood fibre insulation [039; 45]	0.039	1 - 2	45	2.100	E
G	12.0	OSB	0.130	200	600	1.700	D
Н	27.0	resilient channel					
I	25.0	gypsum plaster board type DF (2x12,5 mm) or	0.250	10	800	1.050	A2
I	25.0	gypsum fibre board (2x12,5 mm)	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

atabase ecoinvent		Database GaBi (ÖKOBAUDAT)				
OI3 _{Kon}	44.0	Built-in renewable materials	kg	39.080		
Calculated by HFA		Biogenic carbon in kg CO ₂ -e.	kg CO ₂	58.650		
		Energy use of Primary Energy Share of renewable PF	MJ %	977.620 26.45		
		Calculated by TUM	<i>,</i> c	20.10		

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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Details of sustainability rating

Database ecoinvent

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO ₂ -e.]	[kg SO ₂ -e.]	[kg PO ₄ -e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.176	0.084	3,20E-6	0.031	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[LM]	[LM]	[MJ]	[MJ]
A1 - A3	133.055	562.700	695.755	640.239	28.395	668.635

Database GaBi (ÖKOBAUDAT)

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO ₂ -e.]	[kg SO ₂ -e.]	[kg PO ₄ -e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.158	0.025	7,87E-7	0.037	
C1 - C4		0.010	0.003	7,77E-8	0.001	
A1 - C4		0.173	0.030	8,79E-7	0.038	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[M]	[M]	[MJ]	[LM]	[MJ]	[LM]
A1 - A3	256.152	823.665	1080.944	690.729	45.150	736.015
C1 - C4	1.663	-812.572	-809.771	17.685	-29.896	3.389
A1 - C4	258.574	11.611	272.935	719.045	15.358	758.279