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gdstxx01-00 8/2/23 Holzforschung Austria HFA, SP

Intermediate floor - gdstxx01-00

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

Performance rating

Fire protection performance	REI	30	
maximum span = 5 m; m Classified by HFA	aximum load E _{d,fi} = 5	29 kN/m²	
Germany F30 Load E _{d,fi} according to the Corresponding proof: DIN	e German certificatior I 4102-4:2016-05, Ta	document abelle 10.16, Zeile 1	
Thermal performance Calculated by HFA	U Diffusion	0.66 W∕(m ² K) suitable	
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	57(-3;-10) dB 59(1)	
Assessed by TGM Assessed by Müller-BBM			
Mass per unit area	m	123.50 kg/m ²	_

Register of building materials used for this application, cross-section (from outside to inside, dimensions in mm)

	Thickness	ilding material Thermal performance				Reaction to fire	
			λ	µ min – max	ρ	с	EN
А	25.0	dry screed	0.210	8	900	1.050	A1
В	30.0	impact sound absorbing subflooring MW-T	0.035	1	68	1.030	A1
С	40.0	fill	0.700	1	1800	1.000	A1
D		trickling protection					E
Е	40.0	planking spruce wood tongue and groove fire resistant planking	0.120	50	450	1.600	D
F		construction timber floor joists (in acc. with structural design)	0.120	50	450	1.600	D

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon}

Calculated by HFA

16.3

Database GaBi (ÖKOBAUDAT)

Built-in renewable materials	kg	33.260
Biogenic carbon in kg CO2-e.	kg CO ₂	48.590
Energy use of Primary Energy	MJ	503.980
Share of renewable PE	%	30.22

Calculated by TUM

-B D

F

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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		0.086	0.038	1,69E-6	0.020	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[M]	[M]	[LM]	[M]	[LM]
A1 - A3	96.138	484.789	580.926	293.646	3.822	297.468

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		0.083	0.014	8,90E-7	0.010	
C1 - C4		0.012	0.003	8,28E-8	0.001	
A1 - C4		0.095	0.017	9,73E-7	0.012	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[LM]	[LM]	[MJ]	[MJ]
A1 - A3	149.271	575.356	724.554	319.432	34.226	353.794
C1 - C4	3.046	-574.526	-571.481	32.002	-0.146	31.856
A1 - C4	152.318	0.830	153.074	351.664	34.080	385.881