

Designation: gdrnxa01b-00 Last updated: 8/2/23

Holzforschung Austria Source:

Editor: HFA, SP

# Intermediate floor - gdrnxa01b-00

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

#### Performance rating

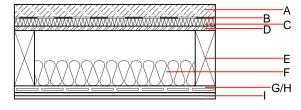
Fire protection

Mass per unit area

Calculation based on GF

performance maximum span = 5 m; maximum load  $E_{d,fi}$  = 3,66 kN/m<sup>2</sup> Classified by HFA Thermal performance U  $0.26 \text{ W/(m}^2\text{K)}$ Diffusion suitable Calculated by HFA Acoustic performance  $R_w$  (C;C<sub>tr</sub>) 66(-1;-6) dB  $L_{n,w}$  ( $C_{l}$ ) 51(0) Assessed by TGM

60



Note: e=625

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

 $152.40~\textrm{kg/m}^2$ 

	Thickness	Building material	Thermal per	rformance			Reaction to fire
			λ	μ min – max	ρ	С	EN
Α	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	18.0	OSB	0.130	200	600	1.700	D
Е	220.0	construction timber (80/; e=*)	0.120	50	450	1.600	D
F	100.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1
G	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
Н	27.0	resilient channel (placed between open formwork)	0.156				
1	25.0	gypsum plaster board type DF (2x12,5 mm) or	0.250	10	800	1.050	A2
1	25.0	gypsum fibre board (2x12,5 mm)	0.320	21	1000	1.100	A2

## Sustainability rating (per m<sup>2</sup>)

Database ecoinvent OI3<sub>Kon</sub> 40.4

Calculated by HFA



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### Details of sustainability rating

#### Database ecoinvent

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO <sub>2</sub> -e.]	[kg SO <sub>2</sub> -e.]	[kg PO <sub>4</sub> -e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.158	0.077	2,89E-6	0.028	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]
	107.044	435.899	542.943	573.962	16.832	590.794