dataholz.eu

Designation: gdmnxa03a-02
Last updated: 4/29/24
Source: Holzforschung Austria
Editor: HFA, SP

Intermediate floor - gdmnxa03a-02

intermediate floor, solid wood construction, suspended, wet, with filling, other surface

Performance rating

Fire protection performance	**REI**	90

maximum span = 5 m; maximum load $E_{d,fi}$ = 6,5 kN/m² (without floor construction)
Classified by HFA

Thermal performance	**U**	0.26 W/(m²K)
	Diffusion	suitable

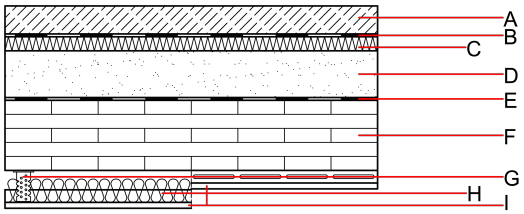
Calculated by HFA

Acoustic performance	**R_w ($C;C_{tr}$)**	76(-5;-12) dB
	$L_{n,w}$ (C_I)	46(2)

[$C_{I50\text{-}2500}$] = [7] dB
Assessed by HFA

Mass per unit area	**m**	340.20 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 m' ca. 150 kg/m²	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. 98 kg/m²	0.700	1	1600	1.000	A1
E		trickling protection					E
F	160.0	cross laminated timber 5-ply (first layer minimum 40 mm)	0.130	50	500	1.600	D
G	70.0	acoustic direct hanger with CD-profile (a=400)					
H	50.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1
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

$OI3_{Kon}$	64.1

Calculated by HFA

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		0.285	0.129	4,81E-6	0.074	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	67.664	1094.400	1162.064	976.332	52.971	1029.303