

## Intermediate floor - gdmnxn03-00

intermediate floor, solid wood construction, without lining, wet, with filling, wooden surface

### Performance rating

**Fire protection performance** REI 60

maximum span = 5 m; maximum load  $E_{d,fi}$  = 5 kN/m<sup>2</sup>  
 Classified by HFA

#### Germany

REI60

Load  $E_{d,fi}$  according to the German certification document

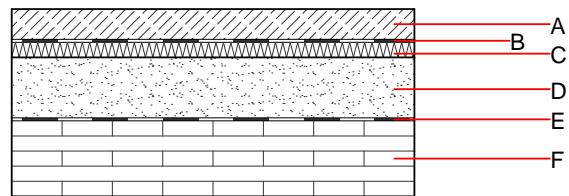
Corresponding proof: manufacturer-specific

**Thermal performance** U Diffusion suitable

**Acoustic performance**  $R_w$  (C;C<sub>tr</sub>) 74(-2;-8) dB  
 $L_{n,w}$  (C<sub>i</sub>) 45(-1)

Assessed by Müller-BBM

**Mass per unit area** m 409.00 kg/m<sup>2</sup>



### 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 EN
			$\lambda$	$\mu$ min - max	$\rho$	c	
A	60.0	cement screed	1.330	50 - 100	2000	1.080	A1
B	0.2	plastic separation layer	0.200	100000	1400	1.400	E
C	40.0	impact sound absorbing subflooring MW-T [ $s' = 10 \text{ MN/m}^3$ ]	0.035	1	68	1.030	A1
D	120.0	elastic bonded fill elastic bonded, $m' = 180 \text{ kg/m}^2$	0.700	1	1500	1.000	A1
E	0.2	trickling protection					E
F	140.0	cross laminated timber	0.130	50	500	1.600	D

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

#### Database ecoinvent

OI3<sub>Kon</sub> 53.2

Calculated by HFA

#### Database GaBi (ÖKOBAUDAT)

**Built-in renewable materials** kg 68.520  
**Biogenic carbon in kg CO<sub>2</sub>-e.** kg CO<sub>2</sub> 98.630  
**Energy use of Primary Energy** MJ 1049.610  
**Share of renewable PE** % 29.70

Calculated by TUM

## Details of sustainability rating

### Database ecoinvent

Lifecycle (Phases)	GWP [kg CO <sub>2</sub> -e.]	AP [kg SO <sub>2</sub> -e.]	EP [kg PO <sub>4</sub> -e.]	ODP [kg R11-e.]	POCP [kg Ethen-e.]	
A1 - A3		0.244	0.111	4,04E-6	0.063	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	58.065	957.600	1015.665	812.618	31.697	844.315

### Database GaBi (ÖKOBAUDAT)

Lifecycle (Phases)	GWP [kg CO <sub>2</sub> -e.]	AP [kg SO <sub>2</sub> -e.]	EP [kg PO <sub>4</sub> -e.]	ODP [kg R11-e.]	POCP [kg Ethen-e.]	
A1 - A3		0.158	0.027	3,72E-6	0.022	
C1 - C4		0.033	0.006	1,69E-7	0.003	
A1 - C4		0.194	0.034	3,89E-6	0.024	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	305.272	1161.515	1463.987	671.184	52.364	722.765
C1 - C4	6.443	-1160.600	-1152.789	66.483	0.000	85.203
A1 - C4	311.717	0.915	311.780	737.898	52.364	817.967