

Floor towards attic (uninhabitable) - ddmxxn01-01

floor towards attic (uninhabitable), solid wood construction, without lining, wooden surface

Performance rating

Fire protection performance REI 60

maximum span = 5 m; maximum load $E_{d,fi}$ = 0,6 kN/m²
 Classified by HFA

Germany

REI60

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

Corresponding proof: manufacturer-specific

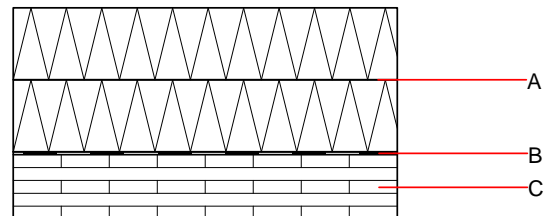
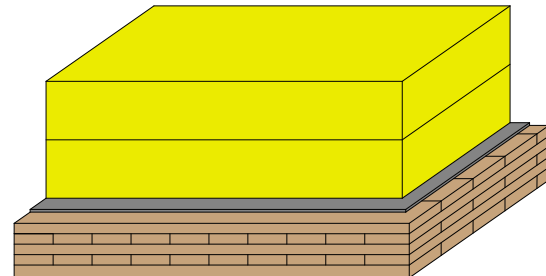
Thermal performance U Diffusion 0.11 W/(m²K)
 suitable

Calculated by TUM

Acoustic performance R_w ($C; C_{tr}$) 44(-2;-7) dB
 $L_{n,w}$ (C_i)

Assessed by Müller-BBM

Mass per unit area m 110.50 kg/m²



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
			λ	μ min – max	ρ	c	
A	300.0	wood-fibre insulation board [0,045; R=160]	0.045	5 - 7	160	2.100	E
B		membrane (airtight)					
C	140.0	cross laminated timber	0.130	50	500	1.600	D

Sustainability rating (per m²)

Databaseecoinvent

O13_{Kon} 68.2

Calculated by HFA

Database GaBi (ÖKOBAUDAT)

Built-in renewable materials	kg	134.580
Biogenic carbon in kg CO ₂ -e.	kg CO ₂	193.220
Energy use of Primary Energy	MJ	1517.110
Share of renewable PE	%	40.72

Calculated by TUM

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		0.329	0.144	6,07E-6	0.076	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	135.310	1843.222	1978.531	1184.339	112.169	1296.508

Database GaBi (ÖKOBAUDAT)

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		0.175	0.036	3,60E-6	0.037	
C1 - C4		0.002	0.000	1,63E-7	0.000	
A1 - C4		0.177	0.037	3,76E-6	0.037	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	615.226	1868.996	2481.542	864.060	70.891	934.201
C1 - C4	2.527	-1868.996	-1866.468	35.292	-53.061	-17.768
A1 - C4	617.754	-0.000	615.074	899.352	17.830	916.432