

Floor towards attic (uninhabitable) - ddrtn04a-01

floor towards attic (uninhabitable), timber frame construction, not suspended, dry, other surface

Performance rating

Fire protection performance REI 30

maximum span = 5 m; maximum load $E_{d,fi} = 3,66 \text{ kN/m}^2$
 Classified by HFA

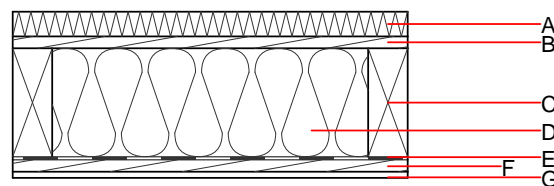
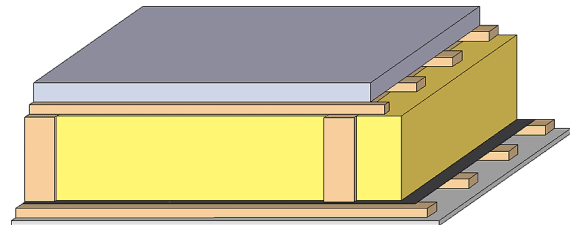
Thermal performance U Diffusion 0.20 $\text{W}/(\text{m}^2\text{K})$
 suitable

Calculated by HFA

Acoustic performance $R_w (C;C_{tr})$ 42(-1;-5) dB
 $L_{n,w} (C_i)$

Mass per unit area m 64.90 kg/m^2

Calculation based on gypsum plaster board type DF



Note: e=625

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	50.0	Magnesite-bound lightweight wood wool board	0.120	2 - 5	700	1.400	
B	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
C	200.0	construction timber (80/...; e=*)	0.120	50	450	1.600	D
D	200.0	mineral wool [040; ≥ 16 ; $< 1000^\circ\text{C}$]	0.040	1	16	1.030	A1
E		vapour barrier $s_d \geq 2\text{m}$			1000		
F	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
G	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
G	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m^2)

Database ecoinvent

$OI3_{Kon}$ 20.7

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		0.094	0.040	1,94E-6	0.018	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	73.504	426.380	499.884	336.016	4.459	340.475