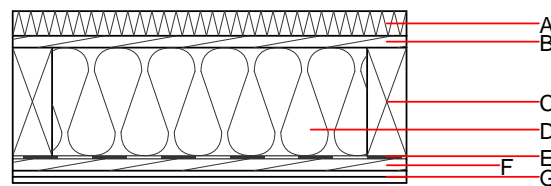
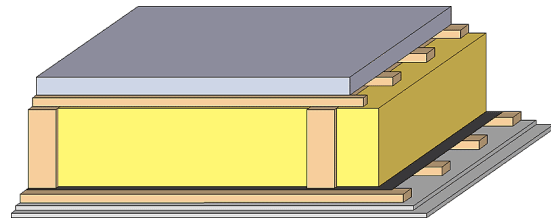


**Floor towards attic (uninhabitable) - ddrtxn04b-05**

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

**Performance rating**

<b>Fire protection performance</b>	REI	60
maximum span = 5 m; maximum load $E_{d,fi} = 3,66 \text{ kN/m}^2$ Classified by HFA		
<b>Thermal performance</b>	U Diffusion	0.18 $\text{W}/(\text{m}^2\text{K})$ suitable
Calculated by HFA		
<b>Acoustic performance</b>	$R_w (C;C_{tr})$ $L_{n,w} (C_i)$	44(-2;-6) dB
Assessed by TGM		
<b>Mass per unit area</b>	m	83.90 $\text{kg}/\text{m}^2$
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
			$\lambda$	$\mu$ min – max	$\rho$	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	220.0	construction timber (80/...; e=*)	0.120	50	450	1.600	D
D	220.0	cellulose fibre [040; E]	0.040	1 - 2	55	2.000	E
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	25.0	gypsum plaster board type DF (2x12,5 mm) or	0.250	10	800	1.050	A2
G	25.0	gypsum fibre board (2x12,5 mm)	0.320	21	1000	1.100	A2

**Sustainability rating** (per  $\text{m}^2$ )

Database ecoinvent

013<sub>kon</sub> 16.3

Calculated by HFA

**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		0.085	0.034	1,81E-6	0.017	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	82.515	542.954	625.469	298.440	4.459	302.899