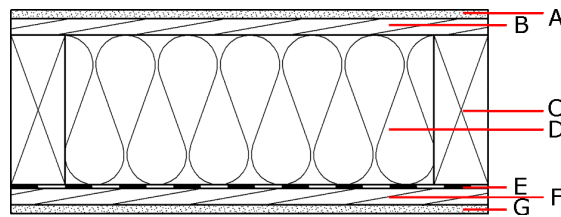
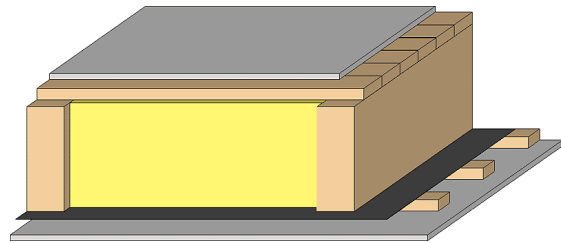


### Floor towards attic (uninhabitable) - ddrtxn05a-02

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

#### Performance rating

<b>Fire protection performance</b>	REI	30
maximum span = 5 m; maximum load $E_{d,fi} = 3,66 \text{ kN/m}^2$ Classified by IBS		
<b>Thermal performance</b>	U Diffusion	0.19 $\text{W}/(\text{m}^2\text{K})$ suitable
Calculated by HFA		
<b>Acoustic performance</b>	$R_w (C;C_{tr})$ $L_{n,w} (C_i)$	47(-3;-8) dB
Assessed by TGM		
<b>Mass per unit area</b>	m	52.30 $\text{kg}/\text{m}^2$
Calculation based on GF		



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
			$\lambda$	$\mu$ min – max	$\rho$	c	
A	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
A	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
B	24.0	planking spruce wood	0.120	50	450	1.600	D
C	240.0	spruce wood floor joists (80/*); e=*	0.120	50	450	1.600	D
D	240.0	mineral wool [040; $\geq 16$ ; $< 1000^\circ\text{C}$ ]	0.040	1	16	1.030	A1
E		vapour barrier $s_d \geq 6\text{m}$			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 $\text{m}^2$ )

##### Database ecoinvent

$OI3_{kon}$  20.3

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	-29.168	0.101	0.045	2,07E-6	0.006	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	28.687	512.593	541.280	342.218	7.943	350.162