

### Floor towards attic (uninhabitable) - ddrtn04a-02

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 IBS

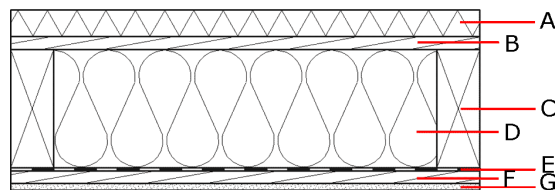
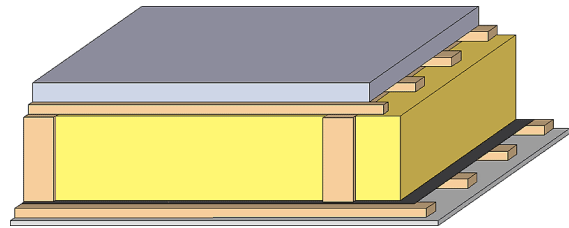
**Thermal performance** U Diffusion 0.17  $\text{W}/(\text{m}^2\text{K})$   
 suitable

Calculated by HFA

**Acoustic performance**  $R_w (C;C_{tr})$  43(-1;-5) dB  
 $L_{n,w} (C_i)$

**Mass per unit area** m 68.00  $\text{kg}/\text{m}^2$

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	240.0	construction timber (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 $s_d \geq 2\text{m}$			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 $\text{m}^2$ )

##### Database ecoinvent

$OI3_{Kon}$  23.6

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	-21.160	0.108	0.046	2,18E-6	0.007	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	35.833	476.338	512.170	360.691	20.201	380.893