

## Floor towards attic (uninhabitable) - ddrxxa01a-01

floor towards attic (uninhabitable), timber frame construction, suspended, dry, other surface

### Performance rating

**Fire protection performance** REI 60

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

**Thermal performance** U 0.10  $\text{W}/(\text{m}^2\text{K})$   
**Diffusion** suitable

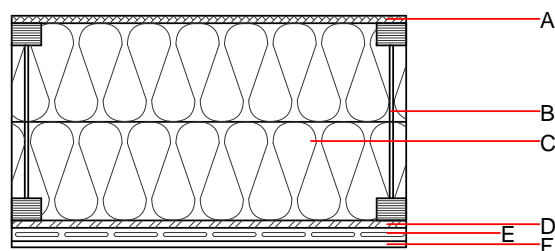
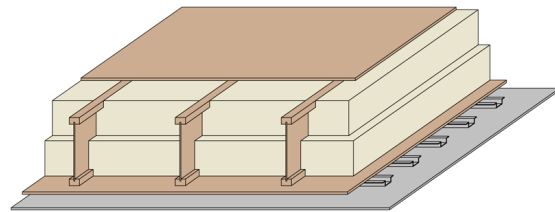
The stated thermal characteristics in the product data sheet are specified for the hard board intermediate web; the flanges are calculated with solid wood.  
 Calculated by HFA

**Acoustic performance**  $R_w (C;C_{tr})$  39 dB  
 $L_{n,w} (C_i)$

Assessed by HFA

**Mass per unit area** m 52.90  $\text{kg}/\text{m}^2$

Calculation based on gypsum plaster board type DF



### 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
			$\lambda$	$\mu \text{ min - max}$	$\rho$	c	
A	15.0	fibreboard (MDF)	0.140	11	600	1.700	D
B	400.0	Light composite wood-based beams (I-beams) with solid wood flanges (60/45) and hard board intermediate web ( $\geq 6,7$ )	0.400	20 - 30	800	1.700	D
C	400.0	Wood fibre insulation [039; 45]	0.039	1 - 2	45	2.100	E
D	15.0	OSB	0.130	200	600	1.700	D
E	27.0	metal rail					
F	15.0	gypsum plaster board type DF or	0.250	10	800	1.050	A2
F	15.0	gypsum fibre board	0.320	21	1000	1.100	A2

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

#### Database ecoinvent

$OI3_{Kon}$  31.5

Calculated using gypsum plaster board type DF  
 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		0.137	0.063	2,53E-6	0.021	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	94.737	732.517	827.254	528.326	60.560	588.885