

Floor towards attic (uninhabitable) - ddrxxa01a-02

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 0.09 $\text{W}/(\text{m}^2\text{K})$
Diffusion suitable

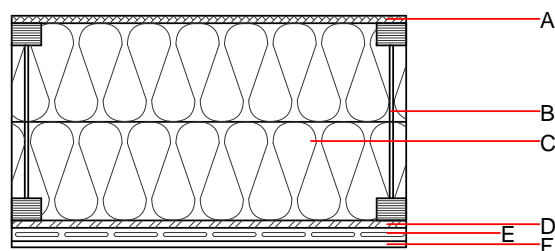
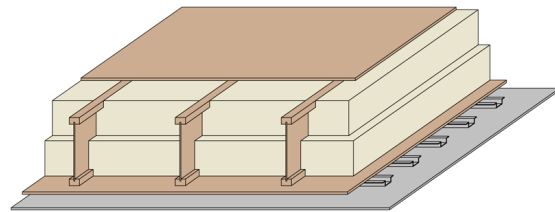
The stated thermal characteristics in the product data sheet are specified for the hard board intermediate web; the flanges are calculated with solid wood.
 Calculated by HFA

Acoustic performance $R_w (C; C_{tr})$ 37 dB
 $L_{n,w} (C_i)$

Assessed by HFA

Mass per unit area m 42.40 kg/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
			λ	μ min - max	ρ	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	mineral wool [034; 18; <1000°C]	0.034	1	18	1.030	A1
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 m^2)

Database ecoinvent

$OI3_{Kon}$ 43.0

Calculated using gypsum plaster board type DF
 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		0.175	0.081	3,05E-6	0.023	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	73.526	413.606	487.132	591.394	30.435	621.829