

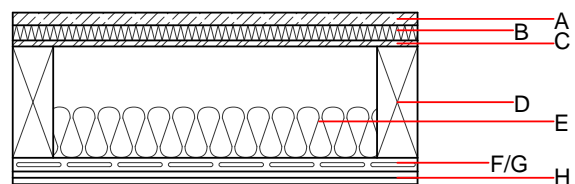
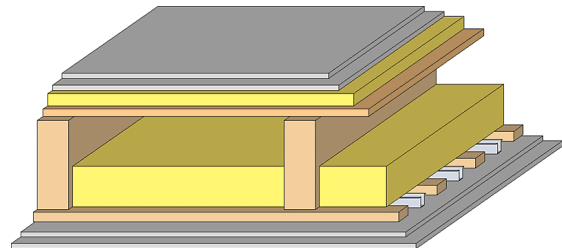
## Intermediate floor - gdrta03b-07

intermediate floor, timber frame construction, suspended, dry, without filling, other surface

### Performance rating

<b>Fire protection performance</b>	REI	60
maximum span = 5 m; maximum load $E_{d,fi}$ = 3,66 kN/m <sup>2</sup> Classified by HFA		
<b>Thermal performance</b>	U Diffusion	0.27 W/(m <sup>2</sup> K) suitable
<b>Acoustic performance</b>	$R_w$ (C;C <sub>tr</sub> ) $L_{n,w}$ (C <sub>i</sub> )	64(-4;-11) dB 54(1)
<b>Mass per unit area</b>	m	70.60 kg/m <sup>2</sup>

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 EN
			$\lambda$	$\mu$ min – max	$\rho$	c	
A	25.0	dry screed	0.210	8	900	1.050	A1
B	30.0	impact sound absorbing subflooring EPS-T	0.040	20 - 50	11	1.450	E
C	18.0	OSB	0.130	200	600	1.700	D
D	220.0	construction timber (80/..; e=625) (80/..; e=*)	0.120	50	450	1.600	D
E	100.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1
F	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
G	27.0	resilient channel (placed between open formwork)	0.156				
H	25.0	gypsum plaster board type DF (2x12,5 mm) or	0.250	10	800	1.050	A2
H	25.0	gypsum fibre board (2x12,5 mm)	0.320	21	1000	1.100	A2

### Sustainability rating (per m<sup>2</sup>)

#### Database ecoinvent

013<sub>Kon</sub> 26.1

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		0.103	0.044	2,30E-6	0.022	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	89.535	406.419	495.953	417.128	30.032	447.160