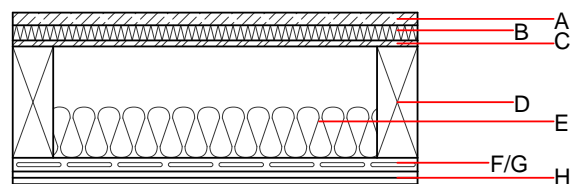
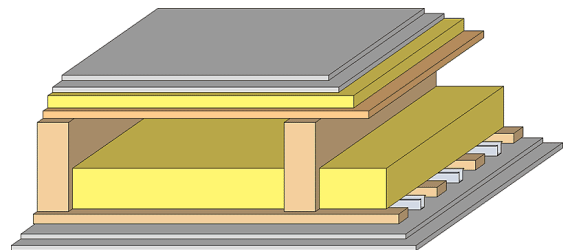


### Intermediate floor - gdrxa03b-09

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 $E_{d,fi} = 3,66 \text{ kN/m}^2$ Classified by HFA		
<b>Thermal performance</b>	U Diffusion	0.27 $\text{W}/(\text{m}^2\text{K})$ suitable
<b>Acoustic performance</b>	$R_w (C;C_{tr})$ $L_{n,w} (C_i)$	61(-5;-12) dB 60(0)
EPS-F with a dynamic stiffness of $s' \leq 40\text{MN}/\text{m}^3$ .		
<b>Mass per unit area</b>	m	70.80 $\text{kg}/\text{m}^2$
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 EN
			$\lambda$	$\mu$ min - max	$\rho$	c	
A	25.0	dry screed	0.210	8	900	1.050	A1
B	30.0	Polystyrene EPS-W [0,041]	0.041	20 - 50	15	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; $\geq 16$ ; $< 1000^\circ\text{C}$ ]	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 $\text{m}^2$ )

##### Database ecoinvent

$OI3_{Kon}$  26.5

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		0.104	0.044	2,31E-6	0.023	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	89.606	406.419	496.025	421.546	33.032	454.577