

## Intermediate floor - gdmtda05b-00

intermediate floor, solid wood construction, suspended, dry, with filling, Gipsplatte

### Performance rating

**Fire protection performance** REI 90  
 maximum span = 5 m; maximum load  $E_{d,fi} = 5 \text{ kN/m}^2$   
 Classified by HFA

**Thermal performance** U 0.26  $\text{W}/(\text{m}^2\text{K})$   
**Diffusion** suitable

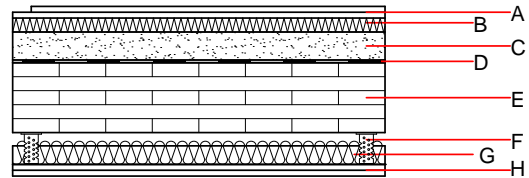
Calculated by IBO

**Acoustic performance**  $R_w (C;C_{tr})$  73(-7;-16) dB  
 $L_{n,w} (C_i)$  46(4)

Assessed by HFA

**Mass per unit area** m 237.30  $\text{kg}/\text{m}^2$

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
			$\lambda$	$\mu$ min – max	$\rho$	c	
A	20.0		0.320	11	1150	1.100	A2
B	30.0	impact sound absorbing subflooring [ $100; s' = 35 \text{ MN}/\text{m}^3$ ]	0.038	1	100	1.030	A1
C	60.0	Kalksplittschüttung in Pappwabe, ungebunden ( $108 \text{ kg}/\text{m}^2$ )	0.700	1	1800	1.000	A1
D		trickling protection					E
E	150.0	cross laminated timber 5-ply (first layer minimum 40 mm)	0.130	50	500	1.600	D
F	70.0	battens 40/40 on acoustic suspension ( $a=400$ )	0.120	50	450	1.600	
G	60.0	sheep wool [ $040; 30$ ]	0.040	1	30	1.720	E
H	25.0	gypsum plaster board type DF 2x12,5mm or	0.250	10	800	1.050	A2
H	25.0	gypsum fibre board 2x12,5mm	0.320	21	1000	1.100	A2

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

#### Database ecoinvent

$013_{Kon}$  52.8

Calculated by IBO

**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		0.271	0.105	4,87E-6	0.082	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	127.264	1257.057	1384.322	875.300	26.145	901.444