

## Intermediate floor - gdsnxx04-01

intermediate floor, exposed beams, without lining, wet, with filling, wooden surface

### Performance rating

**Fire protection performance** REI 30

maximum span = 5 m; maximum load  $E_{d,fi} = 5,5 \text{ kN/m}^2$  (without floor construction; with exposed beams 180/240)

Classified by IBS

Classified by HFA

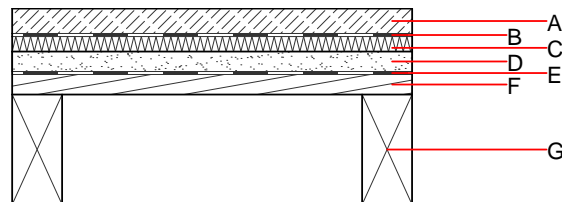
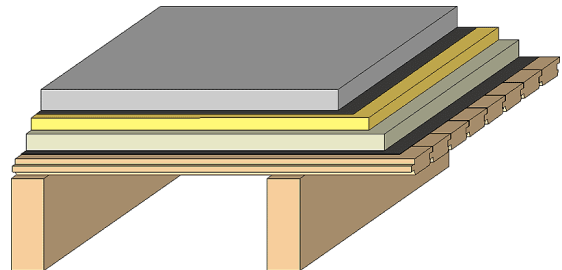
**Thermal performance** U Diffusion 0.76 W/(m<sup>2</sup>K)  
suitable

Calculated by HFA

**Acoustic performance**  $R_w$  (C;C<sub>tr</sub>) 62(-1;-7) dB  
 $L_{n,w}$  (C<sub>i</sub>) 61(-4)

Assessed by TGM

**Mass per unit area** m 199.90 kg/m<sup>2</sup>



Note: [0,044]; 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	50.0	cement screed	1.330	50 - 100	2000	1.080	A1
B		plastic separation layer	0.200	100000	1400	1.400	E
C	30.0	impact sound absorbing subflooring EPS-T	0.040	20 - 50	11	1.450	E
D	40.0	fill	0.700	1	1800	1.000	A1
E		trickling protection					E
F	40.0	planking spruce wood tongue and groove fire resistant planking	0.120	50	450	1.600	D
G		construction timber floor joists (in acc. with structural design)	0.120	50	450	1.600	D

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

#### Database ecoinvent

OI3<sub>Kon</sub> 16.2

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		0.078	0.039	1,10E-6	0.023	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	99.849	484.789	584.638	269.452	20.845	290.296