

Designation: iwrxx007a-02 Last updated: 8/2/23

Source: Holzforschung Austria

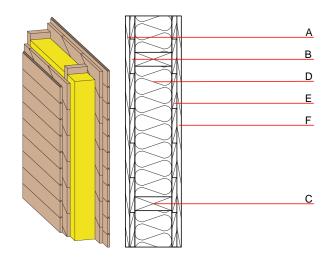
Editor: HFA, PLB

# Internal wall - iwrxxo07a-02

internal wall, timber frame construction, without dry lining, wooden surface

#### Performance rating

Fire protection performance	REI	30
maximum ceiling height = Classified by HFA	= 3 m; maximum load	$E_{d,fi} = 32 \text{ kN/m}$
Acoustic performance	$R_w$ (C;C <sub>tr</sub> ) $L_{n,w}$ (C <sub>l</sub> )	39(-2;-6) dB
Assessed by TGM		
Mass per unit area	m	51.00 kg/m <sup>2</sup>



Note: The fire resistance is only valid when wall is used as partition with only one side exposed to fire.

## Register of building materials used for this application, cross-section (from outside to inside, dimensions in mm)

	Thickness	Building material	Thermal pe	rformance			Reaction to fire
			λ	μ min – max	ρ	С	EN
Α	19.0	planking tongue and groove	0.120	50	450	1.600	D
В	22.0	planking spruce wood diagonal	0.120	50	450	1.600	D
С	160.0	construction timber (60/160; e=625)	0.120	50	450	1.600	D
D	160.0	Wood fibre insulation [039; 50]	0.039	1 - 2	50	2.100	E
Е	22.0	planking spruce wood diagonal	0.120	50	450	1.600	D
F	19.0	planking tongue and groove	0.120	50	450	1.600	D

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

Database ecoinvent						
013 и	6.5					

Calculated by HFA



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### Details of sustainability rating

#### Database ecoinvent

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO <sub>2</sub> -e.]	[kg SO <sub>2</sub> -e.]	[kg PO <sub>4</sub> -e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.079	0.036	1,27E-6	0.026	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]
A1 - A3	151.641	948.645	1100.286	245.949	11.204	257.153