# dataholz.eu

Designation: Last updated: Source: Editor: fdrobo01a-02 8/2/23 Holzforschung Austria HFA, PLB

### Flat roof - fdrobo01a-02

flat roof, timber frame construction, not ventilated, without dry lining, directly, wooden surface

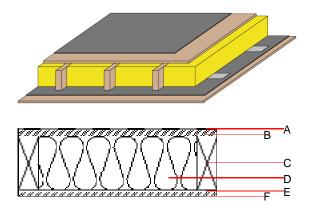
### Performance rating

Calculated by HFA

Fire protection performance	REI	60
maximum span = 5 n Classified by HFA	n; maximum load Ed,f	i = 2,6 kN∕m²
Thermal performanc	e U	0.16 W/(m <sup>2</sup> K)

Diffusion Attention: Due to the application of a moisture-adaptive vapour barrier an objectrelated proof according to protection against moisture (diffusion) is mandatory. A hygrothermic simulation is necessary (e.g. WUFI)

Acoustic performance	R <sub>w</sub> (C;C <sub>tr</sub> ) L <sub>n,w</sub> (C <sub>l</sub> )	39 dB
Assessed by HFA		
Mass per unit area	m	47.80 kg∕m <sup>2</sup>



Note: ATTENTION: Regarding protection against moisture an objectrelated proof in terms of paramter like e.g. climate, shading class etc. is required. Therfore a hygrothermic simulation is necessary (e.g.WUFI), a simple Glaser calculation ist not allowed.

### 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	
			λ	µ min – max	ρ	с	EN	
Ą		Plastic roofing membrane					E	
В	25.0	OSB	0.130	200	600	1.700	D	
С	280.0	construction timber (80/; e=800)	0.120	50	450	1.600	D	
D	280.0	mineral wool [040; 33; $\geq$ 1000°C] with metal strip to retain the insulation in case of fire (0,63/100 mm; e=500)	0.040	1	33	1.030	A1	
E		moisture-adaptive vapour retarder					E	
:	18.0	OSB	0.130	200	600	1.700	D	

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

Database ecoinvent

 $\ensuremath{\textbf{Ol3}_{Kon}}$  Connection joint and screws are disregarded Calculated by HFA

37.5

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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		0.176	0.057	2,79E-6	0.060	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[M]	[LM]	[LM]	[M]	[MJ]
A1 - A3	126,100	649.298	775.398	476.210	101.136	577.346

dataholz.eu – Catalogue of timber building materials, components and component connections reviewed to consider thermal, acoustic, fire performance requirements and ecological drivers for timber construction released by accredited testing institutes. These datasheets will generally be accepted as proofs of compliance by building authorities.