

Ol3 Statement

Result sheet building – new building

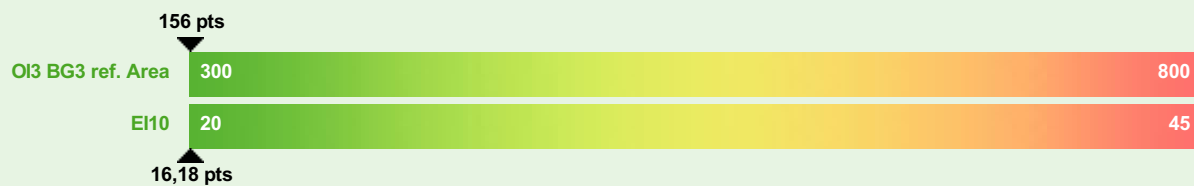


www.baubook.at/eco2soft
Ökobilanz für Gebäude

Project name: copy of CLT

building overall

*Ol3 BG3 ref.	156 points	GFA:	3.000 m ²
Area:		ref. area_{Ol}:	3.000 m ²
EI10:	16,18 points	catalog of LCA indicators:	IBO benchmarks 2012
PENRT:	2.727 MJ / (m ² ref. area _{Ol})	useful life considered:	yes, replacements rates with whole numbers (according to EN 15804 standard)
GWP-total:	-158 kg CO ₂ equ. / (m ² ref. area _{Ol})	study period:	100 years
AP:	0,688 kg SO ₂ equ. / (m ² ref. area _{Ol})	service life catalog:	2018
Guide version Ol3:	V4.0 (September 2018)		
Guide version EI10:	V2, 2018		



* Taking into account the manufacturing phase (A1-A3) and the use phase (B1-B4) of EN 15804

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components from the energy certificate

quantity	building element	Δ Ol3		PENRT	GWP-total	AP	EI _{KON}
		BG3, ref. Area	per m ²	MJ	kg CO ₂ equ.	kg SO ₂ equ.	per m ²
1.715,00 m ²	F1_F1-8_in	53	93	905	-54	0,239	0,84
190,00 m ²	F2_F1-8_ex	4	56	65	-8	0,021	0,15
268,00 m ²	R1	13	140	219	-3	0,043	1,15
30,00 m ²	R2	0	48	10	-1	0,003	0,07
212,00 m ²	W1_F1_L_ex	7	96	110	-3	0,026	1,14
178,00 m ²	W2_F1_L_in	4	65	74	-7	0,019	0,82
1.035,00 m ²	W3_F2-8_L_ex1	33	95	531	-11	0,125	1,16
219,00 m ²	W4_F2-8_L_ex2	4	51	76	-11	0,023	0,53
77,00 m ²	W5_F2-8_L_ex3	2	93	39	-1	0,010	1,08
925,00 m ²	W6_F2-8_L_in	19	62	361	-33	0,094	0,81
211,00 m ²	W7_F1-8_L_in	6	79	90	-1	0,020	1,02
sum				2.481	-134	0,624	

interior walls

quantity	building element	Δ Ol3		PENRT	GWP-total	AP	EI _{KON}
		BG3, ref. Area	per m ²	MJ	kg CO ₂ equ.	kg SO ₂ equ.	per m ²
538,00 m ²	stair	2	10	38	-5,5	0,0114	0,01
406,00 m ²	W8_F1-8_N_in	6	43	111	-9,4	0,0276	0,34
303,00 m ²	W9_F1-8_N_in	5	50	97	-9,1	0,0250	0,35
sum				245	-24,1	0,0640	

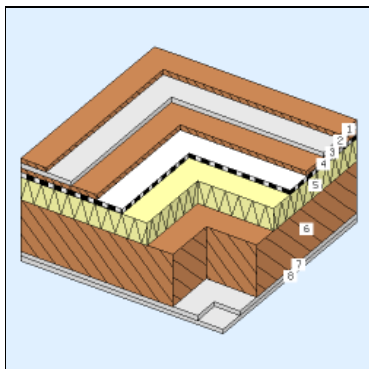
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graphic details of solid and transparent building elements

Project name: copy of CLT

F1_F1-8_in (components from the energy certificate, BG3)



ΣΔOI3: 93 points/m²

El_{KON}: 0,84 points/m²

mass: 164,6 kg/m²

PENRT: 1.584 MJ/m²

GWP-total: -95,1 kg CO₂ equ./m²

AP: 0,419 kg SO₂ equ./m²

service life: yes, replacements rates with whole numbers (according to EN 15804 standard)

no. layer	d _{cm}	Useful life >b	ΔOI3 pts/m ²	Disposal- classification	Exploitation potential
1 Trittschalldämmung (Isover Akustic EP3) (Timber (525 kg/m ³ - e.g. larch) - rough, technically drier)	1,30	50	1	1	1
2 Rigidur Estrichelement (Rigips Feuerschutzplatte)	1,25	50	4	4	3
3 Splittschüttung gebunden (MDF panels semi-dense fibreboard (400 kg/m ³))	2,20	50	16	3	3
4 Rieselschutz (Sisalex™ 30)	0,01	¹ 50	² 0	3	3
5 Brettsperrholz BBS (5-lagig) (Mineral thermal insulating panel (93 kg/m ³))	10,00	35	24	2	3
6 schallentkoppelte U-Direktabhängiger mit Rigips CD Profil / Mineralwolle (z. B. Isover Trennwand Filz)	23,00	100	40	1	1
7 Rigips Feuerschutzplatte	1,25	50	4	4	3
8 Rigips Feuerschutzplatte	1,25	50	4	4	3
building element	40,26				

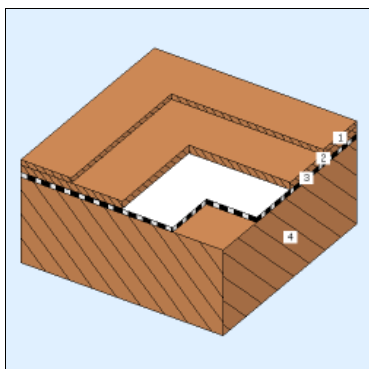
annotations: Importiert am 06. 03. 2022: Bauteil "DE06e_" aus Gebäude ""

¹ self-entered value ² layer is OI-relevant from BG1

16. 05. 2022, Qiming SUN (Tianjin University)

Project name: copy of CLT

F2_F1-8_ex (components from the energy certificate, BG3)



ΣΔOI3: 56 points/m²

El_{KON}: 0,15 points/m²

mass: 124,2 kg/m²

PENRT: 1.034 MJ/m²

GWP-total: -134 kg CO₂ equ./m²

AP: 0,328 kg SO₂ equ./m²

service life: yes, replacements rates with whole numbers (according to EN 15804 standard)

no. layer	d _{cm}	Useful life >b	ΔOI3 pts/m ²	Disposal- classification	Exploitation potential
1 Trittschalldämmung (Isover Akustic EP3) (Timber (525 kg/m ³ - e.g. larch) - rough, technically drier)	1,30	50	1	1	1
2 Splittschüttung gebunden (MDF panels semi-dense fibreboard (400 kg/m ³))	2,00	50	14	3	3
3 Rieselschutz (Sisalex™ 30)	0,01	¹ 50	² 0	3	3
4 schallentkoppelte U-Direktabhängiger mit Rigips CD Profil / Mineralwolle (z. B. Isover Trennwand Filz)	23,00	100	40	1	1
building element	26,31				

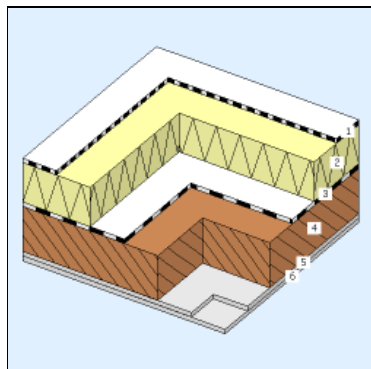
annotations: Importiert am 06. 03. 2022: Bauteil "DE06e_" aus Gebäude ""

¹ self-entered value ² layer is OI-relevant from BG1

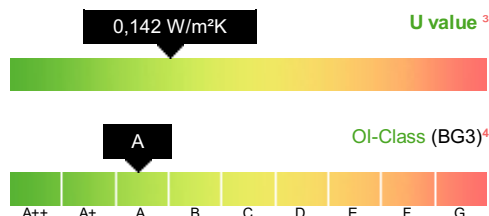
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Project name: copy of CLT

R1 (components from the energy certificate, BG3)



$\Sigma\Delta\text{OI3}$: 140 points/m²
 EI_{KON} : 1,15 points/m²
 mass : 152,3 kg/m²
 PENRT : 2.457 MJ/m²
 GWP-total : -33,9 kg CO₂ equ./m²
 AP : 0,479 kg SO₂ equ./m²
service life: yes, replacements rates with whole numbers (according to EN 15804 standard)



no. layer	d cm	Useful life >b	ΔOI3 pts/m ²	Disposal- classification	Exploitation potential
1 gewebearmierte Kunststoff-Schweißbahn (>1,7 kg/m ²) (Polyethylene (PE) sealing sheeting)	0,25	25	¹ 37	3	4
2 Expandiertes Polystyrol (Gefälledämmung) (Mineral thermal insulating panel (93 kg/m ³))	20,00	35	48	2	3
3 Abdichtungsbahn (sd=220m) (Bauder TEC KSD, Bauder TEC KSD DUO)	0,15	² 50	¹ 8	3	5
4 Brettsperrholz BBS (5-lagig) (KLH® - CLT)	23,00	100	40	1	1
5 Brettsperrholz BBS (5-lagig) (Rigips Feuerschutzplatte)	1,25	50	4	4	3
6 Brettsperrholz BBS (5-lagig) (Rigips Feuerschutzplatte)	1,25	50	4	4	3
building element	45,90				

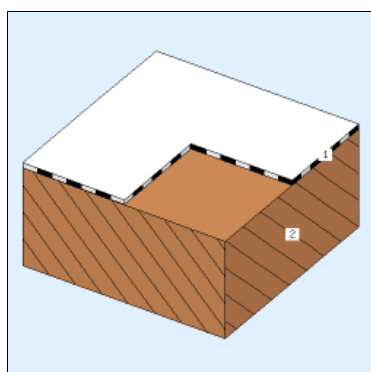
annotations: Importiert am 06. 03. 2022: Bauteil "DA05a_" aus Gebäude ""

¹ layer is OI-relevant from BG1 ² self-entered value ³ U value (Heat transfer coefficient) calculated according to ÖNORM EN ISO 6946. ⁴ For the OI class, the U-value of the component is taken into account in addition to the ecological key figures

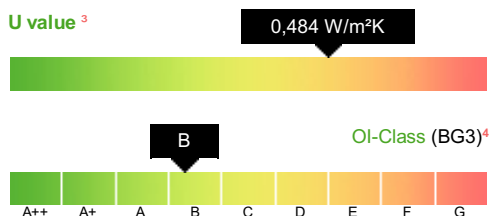
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Project name: copy of CLT

R2 (components from the energy certificate, BG3)



$\Sigma\Delta\text{OI3}$: 48 points/m²
 EI_{KON} : 0,07 points/m²
 mass : 111,0 kg/m²
 PENRT : 959 MJ/m²
 GWP-total : -118 kg CO₂ equ./m²
 AP : 0,266 kg SO₂ equ./m²
service life: yes, replacements rates with whole numbers (according to EN 15804 standard)



no. layer	d cm	Useful life >b	ΔOI3 pts/m ²	Disposal- classification	Exploitation potential
1 Abdichtungsbahn (sd=220m) (Bauder TEC KSD, Bauder TEC KSD DUO)	0,15	¹ 50	² 8	3	5
2 Brettsperrholz BBS (5-lagig) (KLH® - CLT)	23,00	100	40	1	1
building element	23,15				

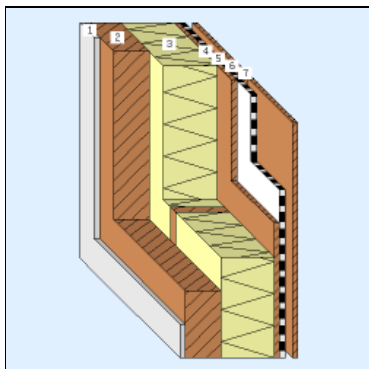
annotations: Importiert am 06. 03. 2022: Bauteil "DA05a_" aus Gebäude ""

¹ self-entered value ² layer is OI-relevant from BG1 ³ U value (Heat transfer coefficient) calculated according to ÖNORM EN ISO 6946. ⁴ For the OI class, the U-value of the component is taken into account in addition to the ecological key figures

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Project name: copy of CLT

W1_F1_L_ex (components from the energy certificate, BG3)



$\Sigma \Delta OI3$: 96 points/m²

E_{kon} : 1,14 points/m²

mass: 120,3 kg/m²

PENRT: 1.563 MJ/m²

GWP-total: -36,7 kg CO₂ equ./m²

AP: 0,372 kg SO₂ equ./m²

service life: yes, replacements rates with whole numbers (according to EN 15804 standard)

0,149 W/m²K

U value ²



A

OI-Class (BG3) ³



no. layer (from inside to outside)	d cm	Useful life >b	$\Delta OI3$ pts/m ²	Disposal- classification	Exploitation potential
1 Rigips Feuerschutzplatte (<i>Rigips Feuerschutzplatte</i>)	1,25	50	4	4	3
2 Brettsperrholz BBS (3-lagig) (<i>KLH® - CLT</i>)	14,50	100	25	1	1
3 <i>inhomogeneous (parts vertical)</i>	22,00				
115 cm (96%) Mineral thermal insulating panel (93 kg/m ³)	22,00	35	51	2	3
5 cm (4%) Timber (475 kg/m ³ - e.g. spruce/fir) - rough, technically dried	22,00	100	0	1	1
4 MDF panels semi-dense fibreboard (400 kg/m ³)	1,50	50	11	3	3
5 Unterspännbahn (<i>Polyethylene (PE) sealing sheeting</i>)	0,02	25	¹ 3	3	4
6 <i>inhomogeneous (parts vertical)</i>	3,00				
115 cm (96%) Vertical air layer, heat flow down 26 < d ≤ 30 mm	3,00		¹ 0	0	0
5 cm (4%) Timber (475 kg/m ³ - e.g. spruce/fir) - rough, technically dried	3,00	50	¹ 0	1	1
7 Holz Außenwandverkleidung (<i>Timber (525 kg/m³ - e.g. larch) - rough, technically dried</i>)	2,00	50	¹ 2	1	1
building element	44,27				

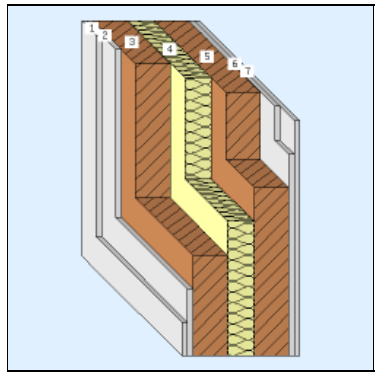
annotations: Importiert am 01. 03. 2022: Bauteil "AW10d_" aus Gebäude ""

¹ layer is OI-relevant from BG1 ² U value (Heat transfer coefficient) calculated according to ÖNORM EN ISO 6946. ³ For the OI class, the U-value of the component is taken into account in addition to the ecological key figures

16. 05. 2022, Qiming SUN (Tianjin University)

Project name: copy of CLT

W2_F1_L_in (components from the energy certificate, BG3)



$\Sigma \Delta OI3$: 65 points/m²
 $E_{l_{kon}}$: 0,82 points/m²
mass: 165,8 kg/m²
PENRT: 1.243 MJ/m²
GWP-total: -117 kg CO₂ equ./m²
AP: 0,327 kg SO₂ equ./m²
service life: yes, replacements rates with whole numbers (according to EN 15804 standard)

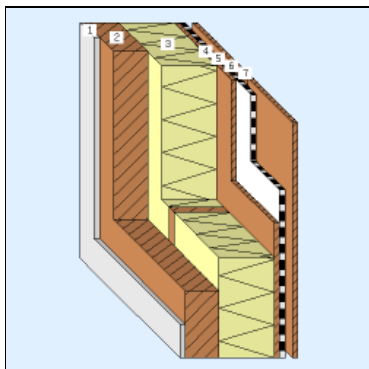
no. layer (from inside to outside)	d cm	Useful life >b	$\Delta OI3$ pts/m ²	Disposal- classification	Exploitation potential
1 Rigips Feuerschutzplatte	1,25	50	¹ 4	4	3
2 Rigips Feuerschutzplatte	1,25	50	¹ 4	4	3
3 Brettsperrholz BBS (3-lagig) (KLH® - CLT)	13,00	100	¹ 23	1	1
4 Sheep's wool - insulation felt (18 kg/m ³)	10,00	50	¹ 5	3	3
5 Brettsperrholz BBS (3-lagig) (KLH® - CLT)	13,00	100	¹ 23	1	1
6 Rigips Feuerschutzplatte	1,25	50	¹ 4	4	3
7 Rigips Feuerschutzplatte	1,25	50	¹ 4	4	3
building element	41,00				

annotations: Importiert am 06. 03. 2022: Bauteil "IW11b_" aus Gebäude ""
¹ layer is OI-relevant from BG3

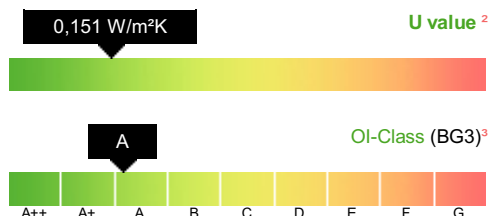
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Project name: copy of CLT

W3_F2-8_L_ex1 (components from the energy certificate, BG3)



$\Sigma \Delta OI3$: 95 points/m²
 $E_{I_{KON}}$: 1,16 points/m²
mass: 117,6 kg/m²
PENRT: 1.540 MJ/m²
GWP-total: -30,8 kg CO₂ equ./m²
AP: 0,363 kg SO₂ equ./m²
service life: yes, replacements rates with whole numbers (according to EN 15804 standard)



no. layer (from inside to outside)	d cm	Useful life >b	$\Delta OI3$ pts/m ²	Disposal- classification	Exploitation potential
1 Rigips Feuerschutzplatte (<i>Rigips Feuerschutzplatte</i>)	1,50	50	5	4	3
2 Brettsperrholz BBS (3-lagig) (<i>KLH® - CLT</i>)	13,50	100	24	1	1
3 <i>inhomogeneous (parts vertical)</i>	22,00				
115 cm (96%) Mineral thermal insulating panel (93 kg/m ³)	22,00	35	51	2	3
5 cm (4%) Timber (475 kg/m ³ - e.g. spruce/fir) - rough, technically dried	22,00	100	0	1	1
4 MDF panels semi-dense fibreboard (400 kg/m ³)	1,50	50	11	3	3
5 Unterspännbahn (<i>Polyethylene (PE) sealing sheeting</i>)	0,02	25	3	3	4
6 <i>inhomogeneous (parts vertical)</i>	3,00				
115 cm (96%) Vertical air layer, heat flow down 26 < d <= 30 mm	3,00		0	0	0
5 cm (4%) Timber (475 kg/m ³ - e.g. spruce/fir) - rough, technically dried	3,00	50	0	1	1
7 Holz Außenwandverkleidung (<i>Timber (525 kg/m³ - e.g. larch) - rough, technically dried</i>)	2,00	50	2	1	1
building element	43,52				

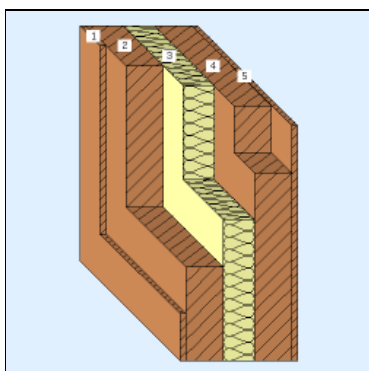
annotations: Importiert am 01. 03. 2022: Bauteil "AW10d_" aus Gebäude ""

¹ layer is OI-relevant from BG1 ² U value (Heat transfer coefficient) calculated according to ÖNORM EN ISO 6946. ³ For the OI class, the U-value of the component is taken into account in addition to the ecological key figures

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Project name: copy of CLT

W4_F2-8_L_ex2 (components from the energy certificate, BG3)



$\Sigma \Delta OI3$: 51 points/m²
 $E_{I_{KON}}$: 0,53 points/m²
mass: 136,8 kg/m²
PENRT: 1.038 MJ/m²
GWP-total: -152 kg CO₂ equ./m²
AP: 0,316 kg SO₂ equ./m²
service life: yes, replacements rates with whole numbers (according to EN 15804 standard)

no. layer (from inside to outside)	d cm	Useful life >b	$\Delta OI3$ pts/m ²	Disposal- classification	Exploitation potential
1 Timber (525 kg/m ³ - e.g. larch) - rough, technically dried	2,00	50	2	1	1
2 Brettsperrholz BBS (3-lagig) (<i>KLH® - CLT</i>)	12,00	100	21	1	1
3 Sheep's wool - insulation felt (18 kg/m ³)	10,00	50	5	3	3
4 Brettsperrholz BBS (3-lagig) (<i>KLH® - CLT</i>)	12,00	100	21	1	1
5 Timber (525 kg/m ³ - e.g. larch) - rough, technically dried	2,00	50	2	1	1
building element	38,00				

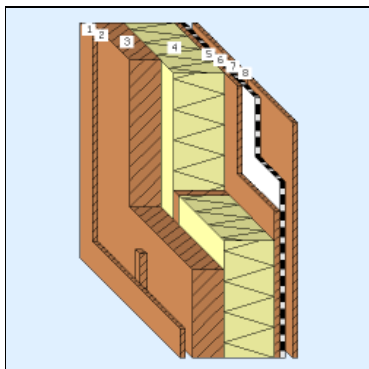
annotations: Importiert am 06. 03. 2022: Bauteil "IW11b_" aus Gebäude ""

¹ layer is OI-relevant from BG3

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Project name: copy of CLT

W5_F2-8_L_ex3 (components from the energy certificate, BG3)



$\Sigma \Delta OI3$: 93 points/m²

$E_{l_{kon}}$: 1,08 points/m²

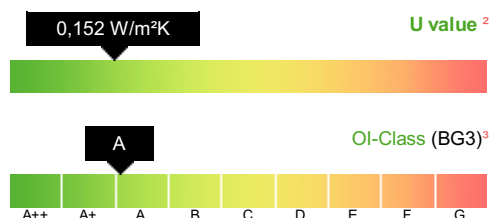
mass: 116,5 kg/m²

PENRT: 1.526 MJ/m²

GWP-total: -51,4 kg CO₂ equ./m²

AP: 0,377 kg SO₂ equ./m²

service life: yes, replacements rates with whole numbers (according to EN 15804 standard)



no. layer (from inside to outside)	d cm	Useful life >b	$\Delta OI3$ pts/m ²	Disposal- classification	Exploitation potential
1 Holz Außenwandverkleidung (Timber (525 kg/m ³ - e.g. larch) - rough, technically dried)	2,00	50	¹ 2	1	1
2 inhomogeneous (parts vertical)	3,00				
115 cm (96%) Vertical air layer, heat flow down 26 < d <= 30 mm	3,00		¹ 0	0	0
5 cm (4%) Timber (475 kg/m ³ - e.g. spruce/fir) - rough, technically dried	3,00	50	¹ 0	1	1
3 Brettsperrholz BBS (3-lagig) (KLH® - CLT)	13,50	100	24	1	1
4 inhomogeneous (parts vertical)	22,00				
115 cm (96%) Mineral thermal insulating panel (93 kg/m ³)	22,00	35	51	2	3
5 cm (4%) Timber (475 kg/m ³ - e.g. spruce/fir) - rough, technically dried	22,00	100	0	1	1
5 MDF panels semi-dense fibreboard (400 kg/m ³)	1,50	50	11	3	3
6 Unterspannbahn (Polyethylene (PE) sealing sheeting)	0,02	25	¹ 3	3	4
7 inhomogeneous (parts vertical)	3,00				
115 cm (96%) Vertical air layer, heat flow down 26 < d <= 30 mm	3,00		¹ 0	0	0
5 cm (4%) Timber (475 kg/m ³ - e.g. spruce/fir) - rough, technically dried	3,00	50	¹ 0	1	1
8 Holz Außenwandverkleidung (Timber (525 kg/m ³ - e.g. larch) - rough, technically dried)	2,00	50	¹ 2	1	1
building element	47,02				

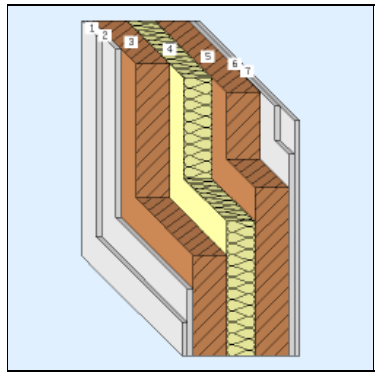
annotations: Importiert am 01. 03. 2022: Bauteil "AW10d_" aus Gebäude ""

¹ layer is OI-relevant from BG1 ² U value (Heat transfer coefficient) calculated according to ÖNORM EN ISO 6946. ³ For the OI class, the U-value of the component is taken into account in addition to the ecological key figures

16. 05. 2022, Qiming SUN (Tianjin University)

Project name: copy of CLT

W6_F2-8_L_in (components from the energy certificate, BG3)



$\Sigma \Delta OI3$: 62 points/m²
 $E_{l_{kon}}$: 0,81 points/m²
mass: 156,3 kg/m²
PENRT: 1.172 MJ/m²
GWP-total: -107 kg CO₂ equ./m²
AP: 0,305 kg SO₂ equ./m²
service life: yes, replacements rates with whole numbers (according to EN 15804 standard)

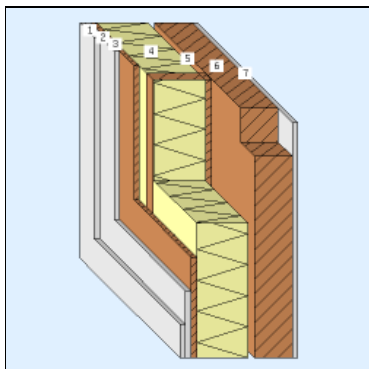
no. layer (from inside to outside)	d cm	Useful life >b	$\Delta OI3$ pts/m ²	Disposal- classification	Exploitation potential
1 Rigips Feuerschutzplatte	1,25	50	¹ 4	4	3
2 Rigips Feuerschutzplatte	1,25	50	¹ 4	4	3
3 Brettsperrholz BBS (3-lagig) (KLH® - CLT)	12,00	100	¹ 21	1	1
4 Sheep's wool - insulation felt (18 kg/m ³)	10,00	50	¹ 5	3	3
5 Brettsperrholz BBS (3-lagig) (KLH® - CLT)	12,00	100	¹ 21	1	1
6 Rigips Feuerschutzplatte	1,25	50	¹ 4	4	3
7 Rigips Feuerschutzplatte	1,25	50	¹ 4	4	3
building element	39,00				

annotations: Importiert am 06. 03. 2022: Bauteil "IW11b_" aus Gebäude ""
¹ layer is OI-relevant from BG3

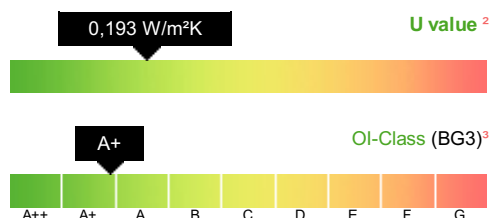
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Project name: copy of CLT

W7_F1-8_L_in (components from the energy certificate, BG3)



$\Sigma\Delta OI3$: 79 points/m²
 $E_{l_{kon}}$: 1,02 points/m²
mass: 110,6 kg/m²
PENRT: 1.274 MJ/m²
GWP-total: -15,0 kg CO₂ equ./m²
AP: 0,291 kg SO₂ equ./m²
service life: yes, replacements rates with whole numbers (according to EN 15804 standard)



no. layer (from inside to outside)	d cm	Useful life >b	$\Delta OI3$ pts/m ²	Disposal- classification	Exploitation potential
1 Rigips Feuerschutzplatte (Rigips Feuerschutzplatte)	1,25	50	4	4	3
2 Rigips Feuerschutzplatte (Rigips Feuerschutzplatte)	1,25	50	4	4	3
3 Holz Außenwandverkleidung (MDF panels semi-dense fibreboard (400 kg/m ³))	1,20	50	¹ 9	3	3
4 inhomogeneous (parts vertical)	16,50				
115 cm (96%) Mineral thermal insulating panel (93 kg/m ³)	16,50	35	38	2	3
5 cm (4%) Timber (475 kg/m ³ - e.g. spruce/fir) - rough, technically dried	16,50	100	0	1	1
5 inhomogeneous (parts vertical)	2,00				
115 cm (96%) Vertical air layer, heat flow down 16 < d <= 20 mm	2,00		¹ 0	0	0
5 cm (4%) Timber (475 kg/m ³ - e.g. spruce/fir) - rough, technically dried	2,00	100	¹ 0	1	1
6 Brettsperrholz BBS (3-lagig) (KLH® - CLT)	12,00	100	21	1	1
7 Rigips Feuerschutzplatte (Rigips Feuerschutzplatte)	1,25	50	4	4	3
building element	35,45				

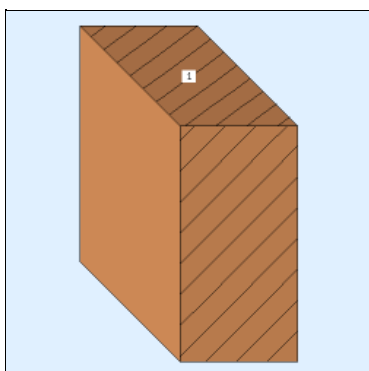
annotations: Importiert am 01. 03. 2022: Bauteil "AW10d_" aus Gebäude ""

¹ layer is OI-relevant from BG1 ² U value (Heat transfer coefficient) calculated according to ÖNORM EN ISO 6946. ³ For the OI class, the U-value of the component is taken into account in addition to the ecological key figures

16. 05. 2022, Qiming SUN (Tianjin University)

Project name: copy of CLT

stair (interior walls, BG3)



$\Sigma\Delta OI3$: 10 points/m²
 $E_{l_{kon}}$: 0,01 points/m²
mass: 28,0 kg/m²
PENRT: 209 MJ/m²
GWP-total: -30,9 kg CO₂ equ./m²
AP: 0,0634 kg SO₂ equ./m²
service life: yes, replacements rates with whole numbers (according to EN 15804 standard)

no. layer (from inside to outside)	d cm	Useful life >b	$\Delta OI3$ pts/m ²	Disposal- classification	Exploitation potential
1 Brettsperrholz BBS (3-lagig) (KLH® - CLT)	5,90	100	¹ 10	1	1
building element	5,90				

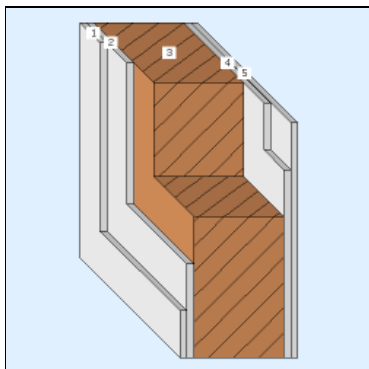
annotations: Importiert am 06. 03. 2022: Bauteil "IW01b_" aus Gebäude ""

¹ layer is OI-relevant from BG3

16. 05. 2022, Qiming SUN (Tianjin University)

Project name: copy of CLT

W8_F1-8_N_in (interior walls, BG3)



$\Sigma\Delta OI3$: 43 points/m²

$E_{l_{kon}}$: 0,34 points/m²

mass: 116,5 kg/m²

PENRT: 818 MJ/m²

GWP-total: -69,6 kg CO₂ equ./m²

AP: 0,204 kg SO₂ equ./m²

service life: yes, replacements rates with whole numbers (according to EN 15804 standard)

no. layer (from inside to outside)	d cm	Useful life >b	$\Delta OI3$ pts/m ²	Disposal- classification	Exploitation potential
1 Rigips Feuerschutzplatte (Rigips Feuerschutzplatte)	1,25	50	¹ 4	4	3
2 Rigips Feuerschutzplatte (Rigips Feuerschutzplatte)	1,25	50	¹ 4	4	3
3 Brettsperrholz BBS (3-lagig) (KLH® - CLT)	16,00	100	¹ 28	1	1
4 Rigips Feuerschutzplatte (Rigips Feuerschutzplatte)	1,25	50	¹ 4	4	3
5 Rigips Feuerschutzplatte (Rigips Feuerschutzplatte)	1,25	50	¹ 4	4	3
building element	21,00				

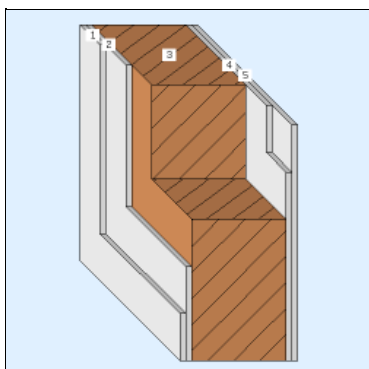
annotations: Importiert am 06. 03. 2022: Bauteil "AW15b_" aus Gebäude ""

¹ layer is OI-relevant from BG2

16. 05. 2022, Qiming SUN (Tianjin University)

Project name: copy of CLT

W9_F1-8_N_in (interior walls, BG3)



$\Sigma\Delta OI3$: 50 points/m²

$E_{l_{kon}}$: 0,35 points/m²

mass: 135,5 kg/m²

PENRT: 959 MJ/m²

GWP-total: -90,5 kg CO₂ equ./m²

AP: 0,247 kg SO₂ equ./m²

service life: yes, replacements rates with whole numbers (according to EN 15804 standard)

no. layer (from inside to outside)	d cm	Useful life >b	$\Delta OI3$ pts/m ²	Disposal- classification	Exploitation potential
1 Rigips Feuerschutzplatte (Rigips Feuerschutzplatte)	1,25	50	¹ 4	4	3
2 Rigips Feuerschutzplatte (Rigips Feuerschutzplatte)	1,25	50	¹ 4	4	3
3 Brettsperrholz BBS (3-lagig) (KLH® - CLT)	20,00	100	¹ 35	1	1
4 Rigips Feuerschutzplatte (Rigips Feuerschutzplatte)	1,25	50	¹ 4	4	3
5 Rigips Feuerschutzplatte (Rigips Feuerschutzplatte)	1,25	50	¹ 4	4	3
building element	25,00				

annotations: Importiert am 06. 03. 2022: Bauteil "AW15b_" aus Gebäude ""

¹ layer is OI-relevant from BG2

16. 05. 2022, Qiming SUN (Tianjin University)

List of materials

material	mass kg	mass- percentage	cumulated percentage	Building material ID	Density kg/m³	λ- Value W/m²K	PENRT MJ/FU (functional unit)	GWP-total kg CO ₂ equ./FU (functional unit)	AP kg SO ₂ equ./FU (functional unit)	FU (functional unit)
KLH® - CLT	565.731	67,6%	67,6%	2142715713	475	0,120	7,46	-1,10	0,00226	kg
Rigips Feuerschutzplatte	152.037	18,2%	85,8%	2142711094	810	0,250	3,09	0,157	0,000399	kg
Mineral thermal insulating panel (93 kg/m³)	49.998	6,0%	91,7%	2142715044	93	0,041	12,3	1,01	0,00214	kg
Timber (525 kg/m³ - e.g. larch) - rough, technically dried	32.311	3,9%	95,6%	2142715293	525	0,130	2,77	-1,65	0,00104	kg
MDF panels semi-dense fibreboard (400 kg/m³)	25.569	3,1%	98,6%	2142715125	400	0,100	11,1	-1,04	0,00413	kg
Timber (475 kg/m³ - e.g. spruce/fir) - rough, technically dried	7.369	0,9%	99,5%	2142715290	475	0,120	2,52	-1,50	0,000944	kg
Sheep's wool - insulation felt (18 kg/m³)	2.380	0,3%	99,8%	2142715068	18		19,7	0,537	0,00412	kg
Polyethylene (PE) sealing sheeting	916	0,1%	99,9%	2142712507	980	0,500	69,8	2,10	0,00792	kg
Bauder TEC KSD, Bauder TEC KSD DUO	514	0,1%	100,0%	2142732461	1.150	0,170	41,6	0,819	0,00556	kg
Sisalex™ 30	152	0,0%	100,0%	2142684992	800	0,180	14,2	-0,953	0,00589	kg
Vertical air layer, heat flow down 26 < d ≤ 30 mm	48	0,0%	100,0%	2142684539	1	0,146	0,00	0,00	0,00	kg
Vertical air layer, heat flow down 16 < d ≤ 20 mm	5	0,0%	100,0%	2142684541	1	0,105	0,00	0,00	0,00	kg