

	amount	factor	calculated amount	total volume	total weight		total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers
interior walls	126.00	1.00	126.00	12.47	3246.13		1602.83	10.02	1602.83	10.02
4.2 interior doors (1x2m=2m²)										
interior door			2			30	3.69E+001	147.60	0.92	147.60
plywood, coated	0.005	2		0.01	780	7.8				
filling, - "wood wool board"	0.04	0.92		0.0368	18	0.6224				
batten, spruce (8V/m²)		0.08		0.0032	495	1.584				
plywood, coated	0.005	2		0.01	780	7.8				
sash	0.1	0.3		0.03	495	14.85				
sill, P...	0.0005	0.05		0.00025	800	0.0215				
total (per door)			0.09		32.72		147.60	0.92	147.60	0.92
total (per m²)			0.05	363.43	16.36		73.80	0.46	73.80	0.46
interior doors	24.00	1.00	24.00	1.08	392.61		1771.20	11.07	1771.20	11.07
4.3 intermediate floor										
parquet	0.014	1		0.014	715	10.01	60	1.56E-001	0.01	-0.95
glue	0.002	1		0.002	1000	2	60	4.52E+000	0.06	0.04
gypsum fibre board	0.013	1		0.013	1250	16.25	60	2.93E-001	0.03	4.76
felt paper	0.002	1		0.002	650	1.3	60	1.69E+000	0.01	1.12
hydr. floor heating, EPS	0.05	1		0.05	18	0.9	40	4.21E+000	0.04	10.48
sheeting, aluminium	0.0005	1		0.0005	2700	1.35	60	9.26E+000	0.08	12.50
heating pipes, ø 20mm, PEX	0.02	0.02		0.0004	1170	0.468	60	3.88E-001	0.04	-2.80
particle board	0.022	1		0.022	680	14.96	60	1.58E+000	0.04	7.20
insulation, mineral wool (10cm)	0.25	0.4		0.1	30	3	40	1.50E+000	0.1	6.75
stud work, spruce (8V/m²)		0.08		0.02	495	9.9	60	2.14E-001	0.01	-6.30
steel connectors, galvanised steel		0.0001		0.000025	7850	0.19625	60	3.59E+000	0.00	0.70
acoustic profile, galvanised steel (e=40cm)	0.025	0.008		0.0002	7850	1.57	60	3.59E+000	0.04	5.64
gypsum board, 2 layers	0.013	2		0.026	800	20.8	60	3.54E-001	0.05	7.36
total (per m²)			0.25	339.65	82.70		64.12	0.40	44.71	0.21
intermediate floor	80.00	1.00	80.00	29.01	6616.34		5129.71	32.06	5129.71	32.06
4.4 stairway										
treads, beech [auftritte]	0.05	1		0.05	715	35.75	60	1.56E-001	0.03	-24.81
stringers, beech [wangen]	0.05	0.5		0.025	715	17.875	60	1.56E-001	0.02	-12.41
hand rail, beech	0.05	0.1		0.005	715	3.575	60	1.56E-001	0.00	-2.48
balusters [gel.-füllung], beech	0.02	0.8		0.016	715	11.44	60	1.56E-001	0.01	-7.94
total (per m²)			0.19	715.00	60.64		10.71	0.67	47.64	-0.26
stairway	5.04	1.00	5.04	0.48	345.95		53.97	0.34	53.97	0.34
5.1 sanitary installation										
distribution, supply			1			30	1.20E+001	25.60	0.16	25.60
total (per m²)							25.60	0.16	25.60	0.16
"hot water storage, 600l"			1			15	6.60E+002	2640.00	16.50	2640.00
total (per unit)							2640.00	16.50	2640.00	16.50
sanitary installation	160.00	1.00	160.00				6736.00	42.10	6736.00	42.10
5.2 heating system										
rock bore holes - "ground probe, 150m"			1			60	2.88E+002	288.00	1.80	288.00
heat pump, 7.6kW - "heat pump 30kW"			0.2533333333			15	5.06E+003	5127.47	32.05	5127.47
heat distribution, floor heating			1			60	2.69E+003	2690.00	16.81	2690.00
total (per unit)							8105.47	50.66	8105.47	50.66
heating system	1.00	1.00	1.00				8105.47	50.66	8105.47	50.66
5.3 ventilation system (192m³/h)										
ventilation system - "central., 720, steel"			0.2666666667			15	1.10E+004	11733.33	73.33	11733.33
total (per unit)							11733.33	73.33	11733.33	73.33
ventilation system	1.00	1.00	1.00				11733.33	73.33	11733.33	73.33
5.3 electrical installation										
distribution, supply - "installation, med. level"			1			15	1.00E+001	40.00	0.25	40.00
total (per unit)							40.00	0.25	40.00	0.25
electrical installation	1.00	1.00	1.00				40.00	0.25	40.00	0.25
eI UCTE 595			86			60	5.95E-001	3070.20		
eI NO 395							3.95E-001	2030.20		
eI CH 149							1.49E-001	768.84		
								5060.00		

reference area (BRA)		160											
element layer	geometry		unit	volume	density	weight	emissions lifetime	GWP over one material or unit lifetime [kg CO2-equiv./kg]	modifiers	GWP_60a (= total GWP over 60 years building [kg CO2-equiv.])	GWP_60a/m² BRA	GWP_60a with modifiers	GWP_60a/m² BRA with modifiers
	quantity	factor											
1.1 exterior wall													
gypsum board	0.013	1		0.013	800	10.4	60	3.54E-001		3.68	0.02	3.68	0.02
insulation, mineral wool	0.048	0.92		0.04416	30	1.3248	40	1.50E+000	0.1	2.98	0.02	3.18	0.02
batten, spruce (8%/m²)		0.08		0.00384	495	1.9088	60	2.14E-001	-0.85	0.41	0.00	-1.21	-0.01
vapour barrier, PE	0.0003	1		0.0003	940	0.282	60	2.70E+000		0.76	0.00	1.66	0.01
insulation, mineral wool	0.6	0.92		0.552	30	16.56	40	1.50E+000	0.1	37.26	0.23	39.74	0.25
stud work, spruce (8%/m²)		0.08		0.048	495	23.76	60	2.14E-001	-0.85	5.08	0.03	-15.11	-0.09
steel connectors, galvanised steel		0.0001		0.00006	7850	0.471	60	3.59E+000		1.69	0.01	1.69	0.01
wind barrier, - "PE fleece"	0.003	1		0.003	930	2.79	60	2.88E+000	3.2	8.04	0.05	16.96	0.11
ventilation, batten, spruce (8%/m²)	0.023	0.08		0.00184	495	0.9188	60	2.14E-001	-0.85	0.19	0.00	-0.58	0.00
exterior cladding	0.019	1		0.019	495	9.405	60	2.14E-001	-0.85	2.01	0.01	-5.98	-0.04
total (per m²)				0.69	98.96	67.80				62.11	0.39	44.04	0.33
amount	factor	calculated amount	total volume	total weight			total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers			
exterior walls	173.00	1.20	207.60	142.25	14076.19		12893.80	86.59	1167.00	1167.00			
1.2 exterior window (1.2x1.5m=1.8m², sashframe=12cm)													
window, glazing			1.8				30	5.69E+001		204.84	1.28	204.84	1.28
floatglass	0.004	3.9		0.0156	38	0.468	30	1.32E+002		475.20	2.97	475.20	2.97
frame, wood	0.12	0.54		0.0648	495	32.076	30	1.32E+002		475.20	2.97	475.20	2.97
frame, core insulation, PUR	0.08	0.162		0.01296	30	0.3888	30	4.32E+000	2.2	3.36	0.02	5.07	0.03
sealant, 2x, silicone	0.01	0.108		0.00108	1700	1.836	30	2.71E+000		9.95	0.06	9.95	0.06
expanding tape, PUR	0.06	0.081		0.00486	30	0.1458	30	4.32E+000		1.26	0.01	1.90	0.01
utfofing, 25cm, spruce	0.021	1.35		0.02835	495	14.0325	30	2.14E-001	-0.85	0.84	0.04	-17.85	-0.11
window sill, galvanised steel	0.0005	0.35		0.00018	7850	1.413	30	3.59E+000		10.15	0.06	10.15	0.06
shading, Venetian blinds, aluminium	0.145	0.312		0.04524	300.30	16.3	30	9.26E+000		301.88	1.89	301.88	1.89
total (per window)				0.17	385.17	37.03				1012.64	6.33	991.13	6.19
total (per m²)				0.10	385.17	37.03				562.58	3.52	550.63	3.40
amount	factor	calculated amount	total volume	total weight			total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers			
exterior windows	22.50	1.00	22.50	2.16	833.26		12657.97	79.11	12590.40	12590.40			
1.3 exterior doors (1x2m=2m²)													
door, "wood, aluminium sheeted"			2				30	8.77E+001		350.80	2.19	350.80	2.19
aluminium sheeting	0.0005	2		0.001	2700	2.7	30	8.77E+001		350.80	2.19	350.80	2.19
plywood, coated	0.005	2		0.01	788	7.8	30	8.77E+001		350.80	2.19	350.80	2.19
insulation, EPS	0.04	0.92		0.0368	18	0.6624	30	8.77E+001		350.80	2.19	350.80	2.19
batten, spruce (8%/m²)		0.08		0.0832	495	1.584	30	8.77E+001		350.80	2.19	350.80	2.19
plywood, coated	0.005	2		0.01	788	7.8	30	8.77E+001		350.80	2.19	350.80	2.19
sash	0.1	0.3		0.03	495	14.85	30	8.77E+001		350.80	2.19	350.80	2.19
sill, EPDM	0.0005	0.85		0.000025	868	0.0215	30	8.77E+001		350.80	2.19	350.80	2.19
sealant, 2x, silicone	0.01	0.12		0.0012	1700	2.04	30	2.71E+000		11.06	0.07	11.06	0.07
expanding tape, PUR	0.06	0.09		0.0054	30	0.162	30	4.32E+000	2.2	1.40	0.01	2.11	0.01
utfofing, 25cm, spruce	0.021	1.5		0.0315	495	15.5925	30	2.14E-001	-0.85	6.67	0.04	-19.83	-0.12
total (per door)				0.13	321.3	32.1				369.93	2.31	349.10	2.28
total (per m²)				0.06	412.10	26.61				184.97	1.16	172.07	1.16
amount	factor	calculated amount	total volume	total weight			total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers			
exterior doors	2.50	1.00	2.50	0.16	66.52		462.41	2.89	459.52	459.52			
2.1 slab to ground													
parquet	0.014	1		0.014	715	10.01	60	1.56E-001	-0.85	1.56	0.01	-6.95	-0.04
glue	0.002	1		0.002	1000	2	60	4.52E+000		9.04	0.06	9.04	0.06
gypsum fibre board	0.013	1		0.013	1250	16.25	60	2.93E-001		4.76	0.03	4.76	0.03
felt paper	0.002	1		0.002	650	1.3	60	1.69E+000		2.28	0.01	1.12	0.01
hydr. floor heating, EPS	0.05	1		0.05	18	0.9	40	4.21E+000	3.55	5.68	0.04	10.48	0.07
sheeting, aluminium	0.0005	1		0.0005	2700	1.35	60	9.26E+000		12.50	0.08	12.50	0.08
heating pipes, ø 20mm, PEX	0.02	0.02		0.0004	1170	0.468	60	9.26E+000		3.72	0.02	3.72	0.02
concrete	0.05	0.99		0.049	2385	116.865	60	6.70E-002	-0.02	7.83	0.05	5.49	0.03
2% reinforcement steel	0.02	0.02		0.001	7850	7.85	60	1.48E+000		11.62	0.07	11.62	0.07
film, PE	0.002	1		0.002	940	1.88	60	2.70E+000	3.2	5.08	0.03	11.09	0.07
insulation, XPS	0.35	1		0.35	18	6.3	40	1.11E+001	3.55	104.90	0.66	138.44	0.87
drain layer, gravel	0.2	1		0.2	2000	400	60	2.41E-003		0.96	0.01	0.96	0.01
total (per m²)				0.68	826.40	565.17				166.13	1.04	190.56	1.24
amount	factor	calculated amount	total volume	total weight			total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers			
slab to ground	80.00	1.20	96.00	65.65	54256.61		15948.22	99.66	15948.22	15948.22			
2.2 foundations													
leca isoblock 35, expanded clay	height	width	area	0.12	908	108	60	4.00E-001	-0.02	43.20	0.27	41.04	0.26
10 cm PUR insulation	0.15	0.09	0.09	0.09	30	2.7	40	4.32E+000	2.2	17.50	0.11	26.41	0.17
mortar, concrete	0.03	0.2	0.06	0.06	1700	10.2	60	6.70E-002	-0.02	0.68	0.00	0.48	0.00
reinforcement	0.003	0.06	0.00018	0.00018	7850	1.413	60	1.48E+000		2.09	0.01	2.09	0.01
sealant strip, PUR	0.02	0.14	0.0028	0.0028	30	0.084	40	4.32E+000	2.2	0.54	0.00	0.82	0.01
sole block, expanded clay	0.175	0.39	0.06925	0.06925	908	61.425	60	4.00E-001	-0.02	24.57	0.15	23.34	0.15
reinforcement steel	0.005	0.015	0.000075	0.000075	7850	0.58875	60	1.48E+000		0.87	0.01	0.87	0.01
concrete - "lean concrete"	0.1	0.5	0.05	0.05	2100	109.5	60	5.57E-002	-0.02	6.10	0.04	3.91	0.02
plinth plaster, silicate	0.3	0.01	0.003	0.003	1700	5.1	60	1.91E-001		0.97	0.01	0.97	0.01
drain film, PP - "PP pipe"	0.6	0.005	0.003	0.003	910	2.73	60	2.36E+000	3.2	6.44	0.04	15.18	0.09
sill membrane (PE + bitumen)	0.004	0.35	0.0014	0.0014	1700	2.38	60	8.26E-001	3.2	1.97	0.01	9.58	0.06
drainage, gravel	0.3	0.2	0.06	0.06	2000	120	60	2.41E-003		0.29	0.00	0.29	0.00
total (per m wall)				0.40	424.12	424.12				105.23	0.66	124.98	0.78
total (per m² for 0.6m height)				0.24	1047.98	254.47				52.61	0.33	62.49	0.39
amount	factor	calculated amount	total volume	total weight			total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers			
foundations	27.60	1.10	30.36	7.37	7725.78		1597.35	9.98	1597.35	1597.35			
3.1 ceiling to attic													
gypsum board	0.013	1		0.013	800	10.4	60	3.54E-001		3.68	0.02	3.68	0.02
insulation, mineral wool	0.048	0.92		0.04416	30	1.3248	40	1.50E+000	0.1	2.98	0.02	3.18	0.02
batten, spruce (8%/m²)		0.08		0.00384	495	1.9088	60	2.14E-001	-0.85	0.41	0.00	-1.21	-0.01
vapour barrier, PE	0.0003	1		0.0003	940	0.282	60	2.70E+000		0.76	0.00	1.66	0.01
insulation, mineral wool	0.6	0.92		0.552	30	16.56	40	1.50E+000	0.1	37.26	0.23	39.74	0.25
stud work, spruce (8%/m²)		0.08		0.048	495	23.76	60	2.14E-001	-0.85	5.08	0.03	-15.11	-0.09
steel connectors, galvanised steel		0.0001		0.00006	7850	0.471	60	3.59E+000		1.69	0.01	1.69	0.01
total (per m²)				0.69	98.96	67.80				62.11	0.39	44.04	0.33
amount	factor	calculated amount	total volume	total weight			total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers			
ceiling to attic	80.00	1.20	96.00	63.48	5265.85		4816.82	30.11	4816.82	4816.82			
3.2 gable walls													
studs, spruce (8%/m²)	0.15	0.08		0.012	495	5.94	60	2.14E-001	-0.85	1.27	0.01	-3.78	-0.02
steel connectors, galvanised steel	0.0001	0.000015		0.000015									

interior walls											
amount	factor	calculated amount	total volume	total weight							
126.00	1.00	126.00	12.47	3246.13				1602.83	10.02	147.60	0.92
4.2 interior doors (1x2m=2m²)											
interior door											
plywood, coated	0.005	2	0.01	788	7.8	30	3.69E+001	147.60	0.92	147.60	0.92
filling, - "wood wool board"	0.04	0.92	0.0368	18	0.6624						
batten, spruce (8x/m²)	0.005	2	0.01	788	7.8						
plywood, coated	0.005	2	0.01	788	7.8						
sash	0.1	0.3	0.03	495	14.85						
sill, P...	0.0005	0.05	0.000025	868	0.0215						
total (per door)			0.09	32.72				147.60	0.92	147.60	0.92
total (per m²)			0.05	363.43	10.36			73.80	0.46	73.80	0.46
amount	factor	calculated amount	total volume	total weight				total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers
interior doors	24.00	1.00	24.00	1.08	392.61			1771.20	11.07	1771.20	11.07
4.3 intermediate floor											
parquet	0.014	1	0.014	715	10.01	60	1.56E-001	-0.85	1.56	0.01	-0.95
glue	0.002	1	0.002	1000	2	60	4.52E+000		9.04	0.06	9.04
gypsum fibre board	0.013	1	0.013	1250	16.25	60	2.93E-001		4.76	0.03	4.76
felt paper	0.002	1	0.002	650	1.3	60	1.69E+000	-0.825	2.20	0.01	1.12
hydr. floor heating, EPS	0.05	1	0.05	18	0.9	40	4.21E+000	3.55	5.68	0.04	10.48
sheeting, aluminium	0.0005	1	0.0005	2700	1.35	60	9.26E+000		12.50	0.08	12.50
heating pipes, ø 20mm, PEX	0.02	0.02	0.0004	1174	0.468		-> heating system				
particle board	0.022	1	0.022	680	14.96	60	3.88E-001	-0.575	5.80	0.04	-2.80
insulation, mineral wool (10cm)	0.25	0.4	0.1	30	3	40	1.50E+000	0.1	6.75	0.04	7.20
stud work, spruce (8x/m²)	0.08		0.02	495	9.9	60	2.14E-001	-0.85	2.12	0.01	-0.30
steel connectors, galvanised steel	0.0001	0.00025	0.000025	7850	0.19625	60	3.59E+000		8.70	0.06	8.70
acoustic profile, galvanised steel (e=40cm)	0.025	0.008	0.0002	7850	1.57	60	3.59E+000		5.64	0.04	5.64
gypsum board, 2 layers	0.013	2	0.026	800	20.8	60	3.54E-001		7.36	0.05	7.36
total (per m²)			0.25	338.05	82.70			64.12	0.40	42.77	0.23
amount	factor	calculated amount	total volume	total weight				total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers
intermediate floor	80.00	1.00	80.00	20.01	6616.34			5129.71	32.06	5129.71	32.06
4.4 stairway											
treads, beech [aufritze]	0.05	1	0.05	715	35.75	60	1.56E-001	-0.85	5.58	0.03	-24.81
stringers, beech [wangen]	0.05	0.5	0.025	715	17.875	60	1.56E-001	-0.85	2.79	0.02	-12.41
hand rail, beech	0.05	0.1	0.005	715	3.575	60	1.56E-001	-0.85	0.56	0.00	-2.48
balusters [gel.-füllung], beech	0.02	0.8	0.016	715	11.44	60	1.56E-001	-0.85	1.78	0.01	-7.94
total (per m²)			0.10	715.00	68.64			10.71	0.07	-47.64	-0.33
amount	factor	calculated amount	total volume	total weight				total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers
stairway	5.04	1.00	5.04	0.48	345.95			53.97	0.34	53.97	0.34
5.1 sanitary installation											
distribution, supply			1			30	1.28E+001		25.60	0.16	25.60
total (per m²)									25.60	0.16	25.60
"hot water storage, 600l"			1			15	6.60E+002		2640.00	16.50	2640.00
total (per unit)									2640.00	16.50	2640.00
amount	factor	calculated amount						total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers
sanitary installation	160.00	1.00	160.00					6736.00	42.10	6736.00	42.10
5.2 heating system											
rock bore holes - "ground probe, 150m"			1			60	2.88E+002		288.00	1.80	288.00
heat pump, 7.1kW - "heat pump 30kW"		0.236666667				15	5.06E+003		4790.13	29.94	4790.13
heat distribution, floor heating		1				60	2.69E+003		2690.00	16.81	2690.00
total (per unit)									7768.13	48.55	7768.13
amount	factor	calculated amount						total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers
heating system	1.00	1.00	1.00					7768.13	48.55	7768.13	48.55
5.3 ventilation system (192m³/hm²)											
ventilation system - "central., 720, steel"		0.266666667				15	1.10E+004		11733.33	73.33	11733.33
total (per unit)									11733.33	73.33	11733.33
amount	factor	calculated amount						total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers
ventilation system	1.00	1.00	1.00					11733.33	73.33	11733.33	73.33
5.3 electrical installation											
photovoltaics, monocrystalline			1			15	2.00E+002		800.00	5.00	800.00
total (per m²)									800.00	5.00	800.00
distribution, supply - "installation, med. level"			1			15	1.00E+001		40.00	0.25	40.00
total (per unit)									40.00	0.25	40.00
amount	factor	calculated amount						total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers
electrical installation	105.00	1.20	126.00					100840.00	630.25	100840.00	630.25
el UCTE			0			60	5.95E-001		0.00	0.00	0.00

reference area (BRA)		160												
element layer	geometry			volume	density	weight	emissions lifetime	GWP over one material or unit lifetime [kg CO2-equiv./kg]	modifiers	GWP_60a (= total GWP over 60 years building [kg CO2-equiv.])	GWP_60a/m² BRA [kg CO2-equiv./m²]	GWP_60a with modifiers	GWP_60a/m² BRA with modifiers	
	quantity	factor	unit											
				[m³]	[kg/m³]	[kg]	[a]	emissions						
1.1 exterior wall														
clay board	0.02	1				700	14	60	1.61E-001		2.25	0.01	2.25	0.01
insulation, cellulose	0.048	0.92		0.04416		60	2.6496	40	3.41E-001	-0.85	1.36	0.01	-1.82	-0.01
batten, spruce (8%/m²)		0.08		0.00384		495	1.9008	60	2.14E-001	-0.85	0.41	0.00	-1.21	-0.01
vapour barrier, OSB/3 panel	0.015	1		0.015		594	8.91	60	5.27E-001	-0.575	4.70	0.03	-0.43	0.00
insulation, cellulose	0.375	0.92		0.345		60	20.7	40	3.41E-001	-0.8	10.59	0.07	-14.25	-0.09
stud work, spruce (8%/m²)		0.08		0.03		495	14.85	60	2.14E-001	-0.85	3.18	0.02	-0.44	-0.06
steel connectors, galvanised steel		0.0001		0.0000375		7850	0.294375	60	3.59E+000		1.06	0.01	1.06	0.01
rigid wood fibre board	0.035	1		0.035		140	4.9	60	3.98E-001	-0.685	1.95	0.01	-1.41	-0.01
ventilation, batten, spruce (8%/m²)	0.023	0.08		0.00184		495	0.9108	60	2.14E-001	-0.85	0.19	0.00	-0.58	0.00
exterior cladding	0.019	1		0.019		495	9.405	60	2.14E-001	-0.85	2.01	0.01	-5.98	-0.04
total (per m²)				0.51	152.80	78.52					27.69	0.17	-31.81	-0.24
amount	factor	calculated amount	total volume	total weight										
173.00	1.20	207.60	106.68	16300.87	total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers						
5748.89	35.93	690.43	0.63											
1.2 exterior window (1.2x1.5m=1.8m², sash+frame=12cm)														
window, glazing			1.8					30	5.69E+001		204.84	1.28	204.84	1.28
floatglass	0.004	3.0		0.0156		30	0.468	30	1.32E+002		475.20	2.97	475.20	2.97
frame, wood	0.12	0.54		0.0648		495	32.076	60	2.14E-001		1.26	0.01	-0.44	-0.06
frame, core insulation, PUR	0.08	0.162		0.01296		30	0.3888	30	4.32E+000	2.2	3.36	0.02	5.07	0.03
sealant, 2x, silicone	0.01	0.108		0.00108		1700	1.836	30	2.71E+000		9.95	0.06	9.95	0.06
expanding tape, PUR	0.06	0.081		0.00486		30	0.1458	30	4.32E+000	2.2	1.26	0.01	1.90	0.01
utfofing, 25cm, spruce	0.021	1.35		0.02835		495	14.0325	30	2.14E-001	-0.85	0.84	0.04	-17.85	-0.11
window sill, galvanised steel	0.0005	0.36		0.00018		7850	1.413	30	3.59E+000		10.15	0.06	10.15	0.06
shading, Venetian blinds, aluminium	0.145	0.312		0.04524	300.30	16.3		30	9.26E+000		301.88	1.89	301.88	1.89
total (per window)				0.17	385.17	37.03					1012.64	6.33	991.13	6.19
total (per m²)				0.10	213.98	20.57					562.58	3.52	550.63	3.40
amount	factor	calculated amount	total volume	total weight	total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers						
22.50	1.00	22.50	2.16	833.26	12657.97	79.11	1290.43	0.76						
1.3 exterior doors (1x2m=2m²)														
door, "wood, aluminium sheeted"			2					30	8.77E+001		350.80	2.19	350.80	2.19
aluminium sheeting	0.0005	2		0.001		2700	2.7	30	8.77E+001		350.80	2.19	350.80	2.19
plywood, coated	0.005	2		0.01		780	7.8	30	1.70E+001		18.79	0.12	18.79	0.12
insulation, EPS	0.04	0.92		0.0368		18	0.6624	30	4.32E+000		13.06	0.08	13.06	0.08
batten, spruce (8%/m²)	0.005	0.08		0.0032		495	1.584	60	2.14E-001	-0.85	0.41	0.00	-1.21	-0.01
plywood, coated	0.005	2		0.01		780	7.8	30	1.70E+001		18.79	0.12	18.79	0.12
sash	0.1	0.3		0.03		495	14.85	60	2.14E-001	-0.85	3.18	0.02	-0.44	-0.06
sill, EPDM	0.0005	0.05		0.000025		860	0.0215	30	3.59E+000		10.15	0.06	10.15	0.06
sealant, 2x, silicone	0.01	0.12		0.0012		1700	2.04	30	2.71E+000		11.06	0.07	11.06	0.07
expanding tape, PUR	0.06	0.09		0.0054		30	0.162	30	4.32E+000	2.2	1.40	0.01	2.11	0.01
utfofing, 25cm, spruce	0.021	1.5		0.0315		495	15.5925	30	2.14E-001	-0.85	0.84	0.04	-19.83	-0.12
total (per door)				0.13	412.10	40.21					369.93	2.31	349.62	2.18
total (per m²)				0.06	206.05	20.10					184.97	1.16	172.07	1.09
amount	factor	calculated amount	total volume	total weight	total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers						
2.50	1.00	2.50	0.16	66.52	462.41	2.89	430.11	0.29						
2.1 slab to ground														
parquet	0.014	1		0.014		715	10.01	60	1.56E-001	-0.85	1.56	0.01	-6.95	-0.04
glue	0.002	1		0.002		1000	2	60	4.52E+000		9.04	0.06	9.04	0.06
screed	0.065	1		0.065		1700	110.5	60	1.70E+001		18.79	0.12	18.79	0.12
hydr. floor heating														
film, PE	0.002	1		0.002		940	1.88	60	2.70E+000	3.2	5.08	0.03	11.09	0.07
rigid wood fibre insulation	0.06	1		0.06		140	8.4	60	3.98E-001	-0.685	3.34	0.02	-2.41	-0.02
concrete	0.15	0.98		0.147		2385	350.595	60	6.70E-002	-0.02	23.49	0.15	16.48	0.10
2% reinforcement steel	0.003	0.02		0.0003		7850	23.55	60	1.48E+000		34.85	0.22	34.85	0.22
film, PE	0.002	1		0.002		940	1.88	60	2.70E+000	3.2	5.08	0.03	11.09	0.07
insulation, foamed glass	0.36	1		0.36		110	39.6	60	1.16E+000		45.94	0.29	45.94	0.29
drain layer, gravel	0.2	1		0.2		2000	400	60	2.41E-003		0.96	0.01	0.96	0.01
total (per m²)				0.66	1109.26	948.42					148.13	0.93	130.88	0.87
amount	factor	calculated amount	total volume	total weight	total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers						
80.00	1.20	96.00	82.08	91047.84	14220.06	88.88	10330.10	0.70						
2.2 foundations														
total (per m² for 0.6m height)				0.00	#DIV/0!	0.00					0.00	0.00	0.00	0.00
amount	factor	calculated amount	total volume	total weight	total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers						
0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
3.1 ceiling to attic														
CLT slab, spruce	0.15	1		0.15		540	81	60	3.45E-001	-0.85	27.95	0.17	-40.91	-0.26
steel connectors, galvanised steel	0.0001	0.000015		0.000015		7850	0.11775	60	3.59E+000		0.42	0.00	0.42	0.00
vapour barrier, OSB/3 panel	0.015	1		0.015		594	8.91	60	5.27E-001	-0.575	4.70	0.03	-0.43	0.00
insulation, cellulose	0.375	1		0.375		60	22.5	40	3.41E-001	-0.8	11.51	0.07	-15.49	-0.10
total (per m²)				0.54	288.38	112.53					44.57	0.28	-50.40	-0.33
amount	factor	calculated amount	total volume	total weight	total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers						
80.00	1.20	96.00	51.84	10802.66	4278.92	26.74	3390.63	0.20						
3.2 gable walls														
studs, spruce (8%/m²)	0.15	0.08		0.012		495	5.94	60	2.14E-001	-0.85	1.27	0.01	-3.78	-0.02
steel connectors, galvanised steel	0.0001	0.000015		0.000015		7850	0.11775	60	3.59E+000		0.42	0.00	0.42	0.00
rigid wood fibre board	0.035	1		0.035		140	4.9	60	3.98E-001	-0.685	1.95	0.01	-1.41	-0.01
ventilation, batten, spruce (8%/m²)	0.023	0.08		0.00184		495	0.9108	60	2.14E-001	-0.85	0.19	0.00	-0.58	0.00
exterior cladding	0.019	1		0.019		495	9.405	60	2.14E-001	-0.85	2.01	0.01	-5.98	-0.04
total (per m²)				0.07	313.51	21.27					5.85	0.04	-11.32	-0.07
amount	factor	calculated amount	total volume	total weight	total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers						
18.40	1.20	22.08	1.50	469.72	129.20	0.81	160.00	0.10						
3.3 roof														
rafter, spruce (8%/m²)	0.2	0.08		0.016		495	7.92	60	2.14E-001	-0.85	1.69	0.01	-5.04	-0.03
steel connectors, galvanised steel	0.0001	0.00002		0.00002		7850	0.157	60	3.59E+000		0.56	0.00	0.56	0.00
rigid wood fibre board	0.035	1		0.035		140	4.9	60	3.98E-001	-0.685	1.95	0.01	-1.41	-0.01
ventilation, batten, spruce (8%/m²)	0.036	0.08		0.00288		495	1.4256	60	2.14E-001	-0.85	0.31	0.00	-0.91	-0.01
batten, spruce (2x8%/m²)	0.036	0.16		0.00576		495	2.8512	60	2.14E-001	-0.85	0.61	0.00	-1.81	-0.01
roofing, tiles - "tonziegel"?	0.02	1.1		0.022		1600	35.2	60	3.58E-001		12.60	0.08	12.60	0.08
total (per m²)				0.60	642.54	52.845					17.72	0.11	-7.00	0.00
amount	factor	calculated amount	total volume	total weight	total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers						
105.00	1.20	126.00	10.29	6609.18	2233.42	13.96	1680.12	0.16						
4.1 interior walls (h=2.50m)														
clay board	0.02	1		0.02		700	14	60	1.61E-001		2.25	0.01	2.25	0.01
insulation, cellulose	0.073	0.92												

	amount	factor	calculated amount	total volume	total weight		total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers
interior doors	24.00	1.00	24.00	1.88	392.61		1771.20	11.07	1771.20	9.39
4.3 intermediate floor					weight			emissions		
parquet	0.014	1	0.014	715	10.01	60	1.56E+001	-0.85	1.56	0.01
glue	0.002	1	0.002	1000	2	60	4.52E+000		9.04	0.06
screed	0.065	1	0.065	1700	110.5	60	1.70E+001		18.79	0.12
hydr. floor heating	-> heating system									
film, PE	0.002	1	0.002	940	1.88	60	2.70E+000	3.2	5.08	0.03
rigid wood fibre board	0.04	1	0.04	140	5.6	60	3.98E+001	-0.685	2.23	0.01
CI' slab, spruce	0.15	1	0.15	540	81	60	3.45E+001	-0.85	27.95	0.17
steel connectors, galvanised steel	0.0001		0.000015	7850	0.11775	60	3.59E+000		0.42	0.00
total (per m²)			0.27	773.25	211.11		65.06		0.41	-10.12
intermediate floor	80.00	1.00	80.00	21.84	16888.62		5204.73	32.53	5204.73	24.28
4.4 stairway										
treads, beech [aufritze]	0.05	1	0.05	715	35.75	60	1.56E+001	-0.85	5.58	0.03
stringers, beech [wangen]	0.05	0.5	0.025	715	17.875	60	1.56E+001	-0.85	2.79	0.02
hand rail, beech	0.05	0.1	0.005	715	3.575	60	1.56E+001	-0.85	0.56	0.00
balusters [gel.-füllung], beech	0.02	0.8	0.016	715	11.44	60	1.56E+001	-0.85	1.78	0.01
total (per m²)			0.10	715.00	68.64		10.71		9.07	-17.64
stairway	5.04	1.00	5.04	0.48	345.95		53.97	0.34	53.97	2.62
5.1 sanitary installation										
distribution, supply			1	30	1.28E+001		25.60	0.16	25.60	0.16
total (per m²)							25.60	0.16	25.60	0.16
"hot water storage, 600l"			1	15	6.60E+002		2640.00	16.50	2640.00	16.50
total (per unit)							2640.00	16.50	2640.00	16.50
sanitary installation	160.00	1.00	160.00				6736.00	42.10	6736.00	33.12
5.2 heating system										
rock bore holes - "ground probe, 150m"			1	60	2.88E+002		288.00	1.80	288.00	1.80
heat pump, 5.7kW - "heat pump 30kW"			0.19	15	5.06E+003		3845.60	24.04	3845.60	24.04
heat distribution, floor heating			1	60	2.69E+003		2690.00	16.81	2690.00	16.81
total (per unit)							6823.60	42.65	6823.60	42.65
heating system	1.00	1.00	1.00				6823.60	42.65	6823.60	42.65
5.3 ventilation system (192m³/h)										
ventilation system - "central., 720, steel"			0.266666667	15	1.10E+004		11733.33	73.33	11733.33	73.33
total (per unit)							11733.33	73.33	11733.33	73.33
ventilation system	1.00	1.00	1.00				11733.33	73.33	11733.33	73.33
5.3 electrical installation										
distribution, supply - "installation, med. level"			1	15	1.00E+001		40.00	0.25	40.00	0.25
total (per unit)							40.00	0.25	40.00	0.25
electrical installation	1.00	1.00	1.00				40.00	0.25	40.00	0.25
eI UCTE 595			85	60	5.95E+001		3034.50		3034.50	0.00
eI NO 395					3.95E+001		2014.50		2014.50	0.00
eI CH 149					1.49E+001		759.90		759.90	0.00

reference area (BRA)		160											
element layer	geometry		unit	volume	density	weight	emissions lifetime	GWP over one material or unit lifetime [kg CO2-equiv./kg]	modifiers	GWP_60a (= total GWP over 60 years building [kg CO2-equiv. / m ²])	GWP_60a/m ² BRA	GWP_60a with modifiers	GWP_60a/m ² BRA with modifiers
	quantity	factor											
1.1 exterior wall													
clay board	0.02	1		0.02	700	14	60	1.61E-001		2.25	0.01	2.25	0.01
insulation, cellulose	0.048	0.92		0.04416	60	2.6496	40	3.41E-001		1.36	0.01	-1.82	-0.01
batten, spruce (8%/m ²)		0.08		0.00384	495	1.9088	60	2.14E-001		0.41	0.00	-1.21	-0.01
vapour barrier, OSB/3 panel	0.015	1		0.015	594	8.91	60	5.27E-001	-0.575	4.70	0.03	-0.43	0.00
insulation, cellulose	0.6	0.92		0.552	60	33.12	40	3.41E-001		16.94	0.11	-22.80	-0.14
stud work, spruce (8%/m ²)		0.08		0.048	495	23.76	60	2.14E-001		5.08	0.03	-15.11	-0.09
steel connectors, galvanised steel		0.0001		0.00006	7850	0.471	60	3.59E+000		1.69	0.01	1.69	0.01
rigid wood fibre board	0.035	1		0.035	140	4.9	60	3.98E-001	-0.685	1.95	0.01	-1.41	-0.01
ventilation, batten, spruce (8%/m ²)	0.023	0.08		0.00184	495	0.9108	60	2.14E-001	-0.85	0.19	0.00	-0.58	0.00
exterior cladding	0.019	1		0.019	495	9.405	60	2.14E-001	-0.85	2.01	0.01	-5.98	-0.04
total (per m ²)				0.74	135.37	100.83				36.59	0.23	-45.40	-0.20
amount	factor	calculated amount	total volume	total weight						total GWP_60a	total GWP_60a/m ² BRA	total GWP_60a w/ modifiers	total GWP_60a/m ² BRA w/ modifiers
exterior walls	173.00	1.20	207.60	153.40	20765.65					7595.21	47.47	4201.04	26.03
1.2 exterior window (1.2x1.5m+1.8m², sash+frame=12cm)													
window, glazing			1.8				30	5.69E+001		204.84	1.28	204.84	1.28
floatglass	0.004	3.0		0.0156	38	0.468	30	1.32E+002		475.20	2.97	475.20	2.97
frame, wood	0.12	0.54		0.0648	495	32.076	30	1.32E+002		475.20	2.97	475.20	2.97
frame, core insulation, PUR	0.08	0.162		0.01296	30	0.3888	30	4.32E+000	2.2	3.36	0.02	5.07	0.03
sealant, 2x, silicone	0.01	0.108		0.00108	1700	1.836	30	2.71E+000		9.95	0.06	9.95	0.06
expanding tape, PUR	0.06	0.081		0.00486	30	0.1458	30	4.32E+000	2.2	1.26	0.01	1.90	0.01
utfofing, 25cm, spruce	0.021	1.35		0.02835	495	14.0325	30	2.14E-001	-0.85	6.41	0.04	-17.85	-0.11
window sill, galvanised steel	0.0005	0.36		0.00018	7850	1.413	30	3.59E+000		10.15	0.06	10.15	0.06
shading, Venetian blinds, aluminium	0.145	0.312		0.04524	300.30	16.3	30	9.26E+000		301.88	1.89	301.88	1.89
total (per window)				0.17	385.17	37.03				1012.64	6.33	991.13	6.19
total (per m ²)				0.10	385.17	37.03				562.58	3.52	550.63	3.40
amount	factor	calculated amount	total volume	total weight						total GWP_60a	total GWP_60a/m ² BRA	total GWP_60a w/ modifiers	total GWP_60a/m ² BRA w/ modifiers
exterior windows	22.50	1.00	22.50	2.16	833.26					12657.97	79.11	12590.49	75.74
1.3 exterior doors (1x2m=2m²)													
door, "wood, aluminium sheeted"			2				30	8.77E+001		350.80	2.19	350.80	2.19
aluminium sheeting	0.0005	2		0.001	2700	2.7	30	8.77E+001		350.80	2.19	350.80	2.19
plywood, coated	0.005	2		0.01	788	7.8	30	8.77E+001		350.80	2.19	350.80	2.19
insulation, EPS	0.04	0.92		0.0368	18	0.6624	30	8.77E+001		350.80	2.19	350.80	2.19
batten, spruce (8%/m ²)		0.08		0.0832	495	1.584	30	8.77E+001		350.80	2.19	350.80	2.19
plywood, coated	0.005	2		0.01	788	7.8	30	8.77E+001		350.80	2.19	350.80	2.19
sash	0.1	0.3		0.03	495	14.85	30	8.77E+001		350.80	2.19	350.80	2.19
sill, EPDM	0.0005	0.05		0.000025	868	0.0215	30	8.77E+001		350.80	2.19	350.80	2.19
sealant, 2x, silicone	0.01	0.12		0.0012	1700	2.04	30	2.71E+000		11.06	0.07	11.06	0.07
expanding tape, PUR	0.06	0.09		0.0054	30	0.162	30	4.32E+000	2.2	1.40	0.01	2.11	0.01
utfofing, 25cm, spruce	0.021	1.5		0.0315	495	15.5925	30	2.14E-001	-0.85	6.67	0.04	-19.83	-0.12
total (per door)				0.13	521.3	26.21				369.93	2.31	369.93	2.31
total (per m ²)				0.06	412.10	26.61				184.97	1.16	172.07	1.00
amount	factor	calculated amount	total volume	total weight						total GWP_60a	total GWP_60a/m ² BRA	total GWP_60a w/ modifiers	total GWP_60a/m ² BRA w/ modifiers
exterior doors	2.50	1.00	2.50	0.16	66.52					462.41	2.89	459.11	2.89
2.1 slab to ground													
parquet	0.014	1		0.014	715	10.01	60	1.56E-001	-0.85	1.56	0.01	-6.95	-0.04
glue	0.002	1		0.002	1000	2	60	4.52E+000		9.04	0.06	9.04	0.06
screed	0.065	1		0.065	1700	110.5	60	1.70E-001		18.79	0.12	18.79	0.12
hydr. floor heating													
film, PE	0.002	1		0.002	940	1.88	60	2.70E+000	3.2	5.08	0.03	11.09	0.07
rigid wood fibre board	0.06	1		0.06	140	8.4	60	3.98E-001	-0.685	3.34	0.02	-2.41	-0.02
concrete	0.15	0.98		0.147	2385	350.595	60	6.70E-002	-0.02	23.49	0.15	16.48	0.10
2% reinforcement steel	0.003	0.02		0.003	7850	23.55	60	1.48E+000		34.85	0.22	34.85	0.22
film, PE	0.002	1		0.002	940	1.88	60	2.70E+000	3.2	5.08	0.03	11.09	0.07
insulation, foamed glass	0.36	1		0.36	110	39.6	60	1.16E+000		45.94	0.29	45.94	0.29
drain layer, gravel	0.2	1		0.2	2000	400	60	2.41E-003		0.96	0.01	0.96	0.01
total (per m ²)				0.86	1109.26	948.42				148.13	0.93	130.88	0.87
amount	factor	calculated amount	total volume	total weight						total GWP_60a	total GWP_60a/m ² BRA	total GWP_60a w/ modifiers	total GWP_60a/m ² BRA w/ modifiers
slab to ground	88.00	1.20	96.00	82.08	91047.84					14220.06	88.88	13530.10	80.70
2.2 foundations													
total (per m ² for 0.6m height)				0.00	0.00	0.00				0.00	0.00	0.00	0.00
amount	factor	calculated amount	total volume	total weight						total GWP_60a	total GWP_60a/m ² BRA	total GWP_60a w/ modifiers	total GWP_60a/m ² BRA w/ modifiers
foundations	0.00	1.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00
3.1 ceiling to attic													
CLT slab, spruce	0.15	1		0.15	540	81	60	3.45E-001	-0.85	27.95	0.17	-40.91	-0.26
steel connectors, galvanised steel	0.0001	0.000015		0.000015	7850	0.11775	60	3.59E+000		0.42	0.00	0.42	0.00
vapour barrier, OSB/3 panel	0.015	1		0.015	594	8.91	60	5.27E-001	-0.575	4.70	0.03	-0.43	0.00
insulation, cellulose	0.6	1		0.6	60	36	40	3.41E-001	-0.8	18.41	0.12	-24.79	-0.15
total (per m ²)				0.77	164.74	126.03				51.48	0.32	-63.70	-0.41
amount	factor	calculated amount	total volume	total weight						total GWP_60a	total GWP_60a/m ² BRA	total GWP_60a w/ modifiers	total GWP_60a/m ² BRA w/ modifiers
ceiling to attic	80.00	1.20	96.00	73.44	12098.66					4941.82	30.89	4790.49	30.49
3.2 gable walls													
studs, spruce (8%/m ²)	0.15	0.08		0.012	495	5.94	60	2.14E-001	-0.85	1.27	0.01	-3.78	-0.02
steel connectors, galvanised steel	0.0001	0.000015		0.000015	7850	0.11775	60	3.59E+000		0.42	0.00	0.42	0.00
rigid wood fibre board	0.035	1		0.035	140	4.9	60	3.98E-001	-0.685	1.95	0.01	-1.41	-0.01
ventilation, batten, spruce (8%/m ²)	0.023	0.08		0.00184	495	0.9108	60	2.14E-001	-0.85	0.19	0.00	-0.58	0.00
exterior cladding	0.019	1		0.019	495	9.405	60	2.14E-001	-0.85	2.01	0.01	-5.98	-0.04
total (per m ²)				0.07	313.51	21.27				5.85	0.04	-11.32	-0.07
amount	factor	calculated amount	total volume	total weight						total GWP_60a	total GWP_60a/m ² BRA	total GWP_60a w/ modifiers	total GWP_60a/m ² BRA w/ modifiers
gable walls	18.40	1.20	22.08	1.50	469.72					129.20	0.81	120.00	0.76
3.3 roof													
rafter, spruce (8%/m ²)	0.2	0.08		0.016	495	7.92	60	2.14E-001	-0.85	1.69	0.01	-5.04	-0.03
steel connectors, galvanised steel	0.0001	0.00002		0.00002	7850	0.157	60	3.59E+000		0.56	0.00	0.56	0.00
rigid wood fibre board	0.035	1		0.035	140	4.9	60	3.98E-001	-0.685	1.95	0.01	-1.41	-0.01
ventilation, batten, spruce (8%/m ²)	0.036	0.08		0.00288	495	1.4256	60	2.14E-001	-0.85	0.31	0.00	-0.91	-0.01
batten, spruce (2x8%/m ²)	0.036	0.16		0.00576	495	2.8512	60	2.14E-001	-0.85	0.61	0.00	-1.81	-0.01
total (per m ²)				0.06	289.20	17.25				5.12	0.03	-8.60	-0.05
amount	factor	calculated amount	total volume	total weight						total GWP_60a	total GWP_60a/m ² BRA	total GWP_60a w/ modifiers	total GWP_60a/m ² BRA w/ modifiers
roof	105.00	1.20	126.00	7.52	2173.98					645.62	4.04	600.00	3.70
4.1 interior walls (h=2.50m)													
clay board	0.02	1		0.02	700	14	60	1.61E-001		2.25	0.01	2.25	0.01
insulation, cellulose	0.073												

	amount	factor	calculated amount	total volume	total weight		total GWP_60a	total GWP_60a/m² BRA	total GWP_60a w/ modifiers	total GWP_60a/m² BRA w/ modifiers
interior doors	24.00	1.00	24.00	1.88	392.61		1771.20	11.07	1771.20	93.15
4.3 intermediate floor										
parquet	0.014	1	0.014	715	10.01	60	1.56E+001	-0.85	1.56	0.01
glue	0.002	1	0.002	1000	2	60	4.52E+000		9.04	0.06
screed	0.065	1	0.065	1700	110.5	60	1.70E+001		18.79	0.12
hydr. floor heating	-> heating system									
film, PE	0.002	1	0.002	940	1.88	60	2.70E+000	3.2	5.08	0.03
rigid wood fibre board	0.04	1	0.04	140	5.6	60	3.98E+001	-0.85	2.23	0.01
CI' slab, spruce	0.15	1	0.15	540	81	60	3.45E+001	-0.85	27.95	0.17
steel connectors, galvanised steel	0.0001		0.000015	7850	0.11775	60	3.59E+000		0.42	0.00
total (per m²)			0.27	773.25	211.11		65.06		0.41	-0.80
intermediate floor	80.00	1.00	80.00	21.84	16888.62		5204.73	32.53	5204.73	241.45
4.4 stairway										
treads, beech [auftritte]	0.05	1	0.05	715	35.75	60	1.56E+001	-0.85	5.58	0.03
stringers, beech [wangen]	0.05	0.5	0.025	715	17.875	60	1.56E+001	-0.85	2.79	0.02
hand rail, beech	0.05	0.1	0.005	715	3.575	60	1.56E+001	-0.85	0.56	0.00
balusters [gel.-füllung], beech	0.02	0.8	0.016	715	11.44	60	1.56E+001	-0.85	1.78	0.01
total (per m²)			0.10	715.00	68.64		10.71		9.07	-0.33
stairway	5.04	1.00	5.04	0.48	345.95		53.97	0.34	53.97	2.53
5.1 sanitary installation										
distribution, supply			1	30	1.28E+001		25.60	0.16	25.60	0.16
total (per m²)							25.60	0.16	25.60	0.16
"hot water storage, 600l"			1	15	6.60E+002		2640.00	16.50	2640.00	16.50
total (per unit)							2640.00	16.50	2640.00	16.50
sanitary installation	160.00	1.00	160.00				6736.00	42.10	6736.00	32.66
5.2 heating system										
rock bore holes - "ground probe, 150m"			1	60	2.88E+002		288.00	1.80	288.00	1.80
heat pump, 4.2kW - "heat pump 30kW"			0.14	15	5.06E+003		2833.60	17.71	2833.60	17.71
heat distribution, floor heating			1	60	2.69E+003		2690.00	16.81	2690.00	16.81
total (per unit)							5811.60	36.32	5811.60	36.32
heating system	1.00	1.00	1.00				5811.60	36.32	5811.60	36.32
5.3 ventilation system (192m³/h)										
ventilation system - "central., 720, steel"			0.266666667	15	1.10E+004		11733.33	73.33	11733.33	73.33
total (per unit)							11733.33	73.33	11733.33	73.33
ventilation system	1.00	1.00	1.00				11733.33	73.33	11733.33	73.33
5.3 electrical installation										
photovoltaics, monocrystalline			1	15	2.00E+002		800.00	5.00	800.00	5.00
total (per m²)							800.00	5.00	800.00	5.00
distribution, supply - "installation, med. level"			1	15	1.00E+001		40.00	0.25	40.00	0.25
total (per unit)							40.00	0.25	40.00	0.25
electrical installation	105.00	1.20	126.00				100840.00	630.25	100840.00	630.25
eI UCIE 595			0	60	5.95E+001			0.00		0.00
eI NO 395					3.95E+001			0.00		0.00
eI CH 149					1.49E+001			0.00		0.00

	base case		case study 1		case study 2		case study 3	
exterior walls	61.54	12%	80.59	7%	35.93	8%	47.47	4%
exterior windows	79.11	15%	79.11	7%	79.11	17%	79.11	7%
exterior doors	2.89	1%	2.89	0%	2.89	1%	2.89	0%
slab to ground	99.68	19%	99.68	9%	88.88	20%	88.88	8%
foundations	9.98	2%	9.98	1%	0.00	0%	0.00	0%
ceiling to attic	21.64	4%	30.11	3%	26.74	6%	30.89	3%
gable walls	1.65	0%	1.65	0%	0.81	0%	0.81	0%
roof	18.75	4%	8.83	1%	13.96	3%	4.04	0%
interior walls	10.02	2%	10.02	1%	5.01	1%	5.01	0%
interior doors	11.07	2%	11.07	1%	11.07	2%	11.07	1%
intermediate floor	32.06	6%	32.06	3%	32.53	7%	32.53	3%
stairway	0.34	0%	0.34	0%	0.34	0%	0.34	0%
building components total	348.72	68%	366.31	32%	297.27	65%	303.02	28%
sanitary installation	42.10	8%	42.10	4%	42.10	9%	42.10	4%
heating system	50.66	10%	48.55	4%	42.65	9%	36.32	3%
ventilation system	73.33	14%	73.33	6%	73.33	16%	73.33	7%
electrical installation	0.25	0%	630.25	54%	0.25	0%	630.25	58%
building services total	166.34	32%	794.23	68%	158.33	35%	782.01	72%
embodied total	515.07	100%	1160.55	100%	455.60	100%	1085.03	100%
operational								
electricity UCTE 595	3070.20		0.00		3034.50		0.00	
electricity NO 395	2038.20				2014.50			
electricity CH 149	768.84				759.90			
total emissions								
UCTE 595	3585.27		1160.55	0.32	3490.10	0.97	1085.03	0.30
CH 149	1283.91		1160.55	0.90	1215.50	0.95	1085.03	0.85
building components total	348.72	348.72	366.31	366.31	297.27	297.27	303.02	303.02
building services total	166.34	166.34	794.23	794.23	158.33	158.33	782.01	782.01
electricity UCTE 595	3070.20		0.00		3034.50		0.00	
electricity CH 149		768.84		0.00		759.90		0.00