

Calculations of embodied energy and carbon dioxide – variant I

	Item No.	Name	Quantity	Unit	Area [m2]	Thickness [m]	Density [kg/m ³]	Basis weight consumption [kg/m ²] or [kg/m ³]	EE value [MJ/kg]	Embodied energy [MJ]	DESCRIPTION	EC value [kgCO ₂ /kg]	Carbon footprint [kgCO ₂]	DESCRIPTION 2	EC value [kgCO ₂ e/kg]	Carbon footprint [kgCO ₂ e]	DESCRIPTION 3
FOUNDATION	1	Compacted sand d=30cm	38.20	m ³	127.33		1650		0.081	5 105.4300	ICE V 2.0	0.004800	302.5440	ICE V 2.0 General	0.004384	276.3424	ICE V 3.0
	2	Lean concrete d=5cm	6.37	m ³	127.33		1800		0.750	8 599.5000	ICE V 2.0	0.100000	1 146.6000	ICE V 2.0 General	0.097000	1 112.2020	ICE V 3.0
	3	Underfloor polystyrene d=20	102.20	m ²		0.200	18		87.400	#ADR!	ICE V 2.0	2.760000	#ADR!	ICE V 2.0	3.420000	#ADR!	ICE V 3.0
	4	Bitumen under-flooring insulation (Dysperbit)	143.78	m ²				1.5	51.000	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.221666	#ADR!	ICE V 3.0
	5	Concrete slab d=25cm. B20	127.33	m ²		0.250	1850		0.700	#ADR!	ICE V 2.0/16/20	0.093000	#ADR!	ICE V 2.0/16/20	0.104000	#ADR!	ICE V 3.0
	6	Reinforcement	127.33	m ²				4	35.400	#ADR!	ICE V 2.0	-			1.990000	#ADR!	ICE V 3.0 REBAR
	7	Polyethylene foil	127.33	m ²				0.185	89.300	#ADR!	ICE V 2.0	2.130000	#ADR!	ICE V 2.0	2.600000	#ADR!	ICE V 3.0
	8	Cement screed	127.33	m ²		0.050	1600		1.330	#ADR!	ICE V 2.0	0.208000	#ADR!	ICE V 2.0	0.200000	#ADR!	ICE V 3.0
	9	Glued tiles	94.78	m ²		0.020	2000		12.000	#ADR!	ICE V 2.0	0.740000	#ADR!	ICE V 2.0	0.780000	#ADR!	ICE V 3.0
OUTER WALLS	10	Wall paint	162.15	m ²		2	warstwa	#ADR!	70.000	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
	11	Cement-lime plaster	162.15	m ²		0.015	1850		1.800	#ADR!	ICE V 2.0	0.120000	#ADR!	ICE V 2.0	0.130000	#ADR!	ICE V 3.0
	12	Ceramic hollow brick d=25. Portoherm	162.15	m ²		0.250	800		3.000	#ADR!	ICE V 2.0	0.230000	#ADR!	ICE V 2.0	0.210000	#ADR!	ICE V 3.0
	13	Styrofoam d=15. adhesive with mesh	162.15	m ²		0.150	15		88.600	#ADR!	ICE V 2.0	2.550000	#ADR!	ICE V 2.0	3.290000	#ADR!	ICE V 3.0
	14	Cement-lime plaster	116.30	m ²		0.015	1850		1.800	#ADR!	ICE V 2.0	0.120000	#ADR!	ICE V 2.0	0.130000	#ADR!	ICE V 3.0
	15	Wall paint	116.30	m ²		2	warstwa	#ADR!	70.000	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
REINFORCED CONCRETE FLOOR (CEILING)	16	Oriented strand board x 2	102.68	m ²		0.044	650		15.000	#ADR!	ICE V 2.0	0.990000	#ADR!	ICE V 2.0	-1.500000	#ADR!	ICE V 3.0
	17	Wool between floor joists	102.68	m ²		0.200	28		16.600	#ADR!	ICE V 2.0	1.200000	#ADR!	ICE V 2.0	1.280000	#ADR!	ICE V 3.0
	18	Timber joists	4.12	m ³			550		7.400	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	19	Polyethylene foil	123.85	m ²				0.185	89.300	#ADR!	ICE V 2.0	2.130000	#ADR!	ICE V 2.0	2.600000	#ADR!	ICE V 3.0
	20	Reinforced concrete floor d=15. B25	102.68	m ²		0.150	2200		0.740	#ADR!	ICE V 2.0/20/25	0.100000	#ADR!	ICE V 2.0/20/25	0.112000	#ADR!	ICE V 3.0 20/25
	21	Reinforcement	102.68	m ²				4	35.400	#ADR!	ICE V 2.0	-			1.990000	#ADR!	ICE V 3.0 REBAR

Calculations of embodied energy and carbon dioxide – variant II

	Item no.	Name	Quantity	Unit	Area [m ²]	Thickness [m]	Density [kg/m ³]	Basis weight consumption [kg/m ²] or [kg/m ³]	EE value [MJ/kg]	Embodied energy [MJ]	DESCRIPTION	EC value [kgCO ₂ /kg]	Carbon footprint [kgCO ₂]	DESCRIPTION 2	EC value [kgCO ₂ e/kg]	Carbon footprint [kgCO ₂ e]	DESCRIPTION 3
FOUNDATION	1	Compacted sand d=30cm	38.20	m ³	127.33		1650		0.08	5 105.4300	ICE V 2.0	0.004800	302.5440	ICE V 2.0 General	0.004384	276.3424	ICE V 3.0
	2	Blinding concrete d=5cm	6.37	m ³	127.33		1800		0.75	8 599.5000	ICE V 2.0	0.100000	1 146.6000	ICE V 2.0 General	0.097000	1 112.2020	ICE V 3.0
	3	Underfloor polystyrene d=20	102.20	m ²		0.200	18		87.40	#ADR!	ICE V 2.0	2.760000	#ADR!	ICE V 2.0	3.420000	#ADR!	ICE V 3.0
	4	Bitumen under-flooring insulation (Dysperbit)	143.78	m ²				1.5	51.00	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.221666	#ADR!	ICE V 3.0
	5	Concrete slab d=25cm. B20	127.33	m ²		0.250	1850		0.70	#ADR!	ICE V 2.0 /16/20	0.093000	#ADR!	ICE V 2.0 /16/20	0.104000	#ADR!	ICE V 3.0
	6	Reinforcement	127.33	m ²				4	35.40	#ADR!	ICE V 2.0	-			1.990000	#ADR!	ICE V 3.0 REBAR
	7	Polyethylene foil	127.33	m ²				0.185	89.30	#ADR!	ICE V 2.0	2.130000	#ADR!	ICE V 2.0	2.600000	#ADR!	ICE V 3.0
	8	Cement screed	127.33	m ²		0.050	1600		1.33	#ADR!	ICE V 2.0	0.208000	#ADR!	ICE V 2.0	0.200000	#ADR!	ICE V 3.0
	9	Glued tiles	94.78	m ²		0.020	2000		12.00	#ADR!	ICE V 2.0	0.740000	#ADR!	ICE V 2.0	0.780000	#ADR!	ICE V 3.0
EXTERNAL WALLS	10	Wall paint	162.15	m ²		2	warstwa	#ADR!	70.00	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
	11	Cement-lime plaster	162.15	m ²		0.015	1850		1.80	#ADR!	ICE V 2.0	0.120000	#ADR!	ICE V 2.0	0.130000	#ADR!	ICE V 3.0
	12	Steico Protect H fibreboard	162.15	m ²		0.040	265		16.00	#ADR!	ICE V 2.0	1.090000	#ADR!	ICE V 2.0	-1.590000	#ADR!	ICE V 3.0
	13	Strawbales between framework	39.06	m ³			80		0.89	#ADR!		0.180000	#ADR!	Publikacja PK	-1.250000	#ADR!	
	14	Steico Flex fibreboard	162.15	m ²		0.050	50		16.00	#ADR!	ICE V 2.0	1.090000	#ADR!	ICE V 2.0	-1.590000	#ADR!	ICE V 3.0
	15	Claytec clay plaster	117.63	m ²		0.010	1500		1.80	#ADR!	ICE V 2.0 General	0.130000	#ADR!	CLAYWORKS	0.116200	#ADR!	CLAYWORKS
	16	Wall paint	117.63	m ²		2	warstwa	#ADR!	70.00	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
FLOOR (CEILING)	17	Oriented strand board x 2	102.20	m ²		0.044	650		15.00	#ADR!	ICE V 2.0	0.990000	#ADR!	ICE V 2.0	-1.500000	#ADR!	ICE V 3.0
	18	Wool between joists	102.20	m ²		0.050	28		16.60	#ADR!	ICE V 2.0	1.200000	#ADR!	ICE V 2.0	1.280000	#ADR!	ICE V 3.0

	19	Timber joists	1.62	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	20	Mineral wool between beams	102.20	m ²		0.200	28		16.60	#ADR!	ICE V 2.0	1.200000	#ADR!	ICE V 2.0	1.280000	#ADR!	ICE V 3.0
	21	Floor-slab formwork	2.80	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
LOAD-BEARING STRUCTURAL WALLS	22	Wall paint	54.38	m ²		2	warstwa	#ADR!	70.00	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
	23	Claytec clay plaster	54.38	m ²		0.010	1500		1.80	#ADR!	ICE V 2.0 General	0.130000	#ADR!	CLAYWORKS	0.116200	#ADR!	CLAYWORKS
	24	Strawbales between framework	16.92	m ³			80		0.89	#ADR!		0.180000	#ADR!	Publikacja PK	-1.250000	#ADR!	
	25	Claytec clay plaster	54.38	m ²		0.010	1500		1.80	#ADR!	ICE V 2.0 General	0.130000	#ADR!	CLAYWORKS	0.116200	#ADR!	CLAYWORKS
	26	Wall paint	54.38	m ²		2	warstwa	#ADR!	70.00	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
PARTITION WALLS	27	Wall paint	48.49	m ²		2	warstwa	#ADR!	70.00	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
	28	Drywall	48.49	m ²		0.015	568		6.75	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.390000	#ADR!	ICE V 3.0
	29	Framework	0.86	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	30	Mineral wool	50.29	m ²		0.100	28		16.60	#ADR!	ICE V 2.0	1.200000	#ADR!	ICE V 2.0	1.280000	#ADR!	ICE V 3.0
	31	Drywall	48.49	m ²		0.015	568		6.75	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.390000	#ADR!	ICE V 3.0
	32	Wall paint	48.49	m ²		2	warstwa	#ADR!	70.00	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
ROOF	33	Roof membrane	217.00	m ²				0.145	99.20	#ADR!	ICE V 2.0 PP	2.970000	#ADR!	ICE V 2.0 PP	3.430000	#ADR!	ICE V 3.0 PP
	34	Counter-battens	328.00	mb	0.0016		550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	35	Boarding	6.49	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	36	Base asphalt roofing	166.40	m ²				6	51.00	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.326000	#ADR!	ICE V 3.0
	37	Bituminous shingle	166.40	m ²				12.5	11.30	#ADR!	ICE V 2.0	0.300000	#ADR!	ICE V 2.0	0.300000	#ADR!	ICE V 3.0 tylko CO2
TIMBER	38	Construction timber - framework	30.37	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	39	Construction timber - rafter framing	8.29	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
WINDOWS	40	Window joinery list	16.5	m ²					360.00	#ADR!	ICE V 1.0	18.000000	#ADR!	ICE V 1.0	18.000000	#ADR!	ICE V 1.0
									#ADR!		MJ		#ADR!	kg CO ₂		#ADR!	kg CO ₂ e

Calculations of embodied energy and carbon dioxide – variant III

	Item no.	Name	Quantity	Unit	Area [m ²]	Thickness [m]	Density [kg/m ³]	Basis weight consumption [kg/m ²] or [kg/m ³]	EE value [MJ/kg]	Embodied energy [MJ]	DESCRIPTION	EC value [kgCO ₂ /kg]	Carbon footprint [kgCO ₂]	DESCRIPTION 2	EC value [kgCO _{2e} /kg]	Carbon footprint [kgCO _{2e}]	DESCRIPTION 3
FOUNDATION	1	Compacted sand d=30cm	38.20	m ³	127.33		1650		0.08	5 105.4300	ICE V 2.0	0.004800	302.5440	ICE V 2.0 General	0.004384	276.3424	ICE V 3.0
	2	Lean concrete d=5cm	6.37	m ³	127.33		1800		0.75	8 599.5000	ICE V 2.0	0.100000	1 146.6000	ICE V 2.0 General	0.097000	1 112.2020	ICE V 3.0
	3	Underfloor polystyrene d=20	102.20	m ²		0.200	18		87.40	#ADR!	ICE V 2.0	2.760000	#ADR!	ICE V 2.0	3.420000	#ADR!	ICE V 3.0
	4	Bitumen under-flooring insulation (Dysperbit)	143.78	m ²				1.5	51.00	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.221666	#ADR!	ICE V 3.0
	5	Concrete slab d=25cm. B20	127.33	m ²		0.250	1850		0.70	#ADR!	ICE V 2.0 /16/20	0.093000	#ADR!	ICE V 2.0 /16/20	0.104000	#ADR!	ICE V 3.0
	6	Reinforcement	127.33	m ²				4	35.40	#ADR!	ICE V 2.0	-			1.990000	#ADR!	ICE V 3.0 REBAR
	7	Polyethylene foil	127.33	m ²				0.185	89.30	#ADR!	ICE V 2.0	2.130000	#ADR!	ICE V 2.0	2.600000	#ADR!	ICE V 3.0
	8	Cement screed	127.33	m ²		0.050	1600		1.33	#ADR!	ICE V 2.0	0.208000	#ADR!	ICE V 2.0	0.200000	#ADR!	ICE V 3.0
	9	Glued tiles	94.78	m ²		0.020	2000		12.00	#ADR!	ICE V 2.0	0.740000	#ADR!	ICE V 2.0	0.780000	#ADR!	ICE V 3.0
OUTER WALLS	10	Board sliding	3.24	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	11	Wind barrier	162.15	m ²				0.145	99.20	#ADR!	ICE V 2.0 PP	2.970000	#ADR!	ICE V 2.0 PP	3.430000	#ADR!	ICE V 3.0 PP
	12	Waterproof plywood	162.50	m ²		0.020	540		15.00	#ADR!	ICE V 2.0 PLYWOOD	1.100000	#ADR!	ICE V 2.0 PLYWOOD	-1.610000	#ADR!	ICE V 3.0 PLYWOOD
	13	Straw bales between framework	56.70	m ³			80		0.89	#ADR!		0.180000	#ADR!	Publikacja PK	-1.250000	#ADR!	
	14	Vapor barrier foil	114.42	m ²				0.077	89.30	#ADR!	ICE V 2.0 LDPE	2.130000	#ADR!	ICE V 2.0 LDPE	2.600000	#ADR!	ICE V 3.0 LDPE
	15	Oriented strand board	114.42	m ²		0.022	28		15.00	#ADR!	ICE V 2.0	0.990000	#ADR!	ICE V 2.0	-1.500000	#ADR!	ICE V 3.0
	16	Plasterboard	114.42	m ²		0.015	568		6.75	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.390000	#ADR!	ICE V 3.0
	17	Wall paint	114.42	m ²		2	warstwa	#ADR!	70.00	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
FLOOR (CEILING)	18	Oriented strand board x 2	95.76	m ²		0.044	650		15.00	#ADR!	ICE V 2.0	0.990000	#ADR!	ICE V 2.0	-1.500000	#ADR!	ICE V 3.0
	19	Wool between joists	95.76	m ²		0.050	28		16.60	#ADR!	ICE V 2.0	1.200000	#ADR!	ICE V 2.0	1.280000	#ADR!	ICE V 3.0
	20	Timber joists	1.52	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	21	Mineral wool between beams	95.76	m ²		0.200	28		16.60	#ADR!	ICE V 2.0	1.200000	#ADR!	ICE V 2.0	1.280000	#ADR!	ICE V 3.0
	22	Floor-slab formwork	2.87	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0

LOAD-BEARING WALLS	23	Wall paint	45.06	m ²		2	warstwa	#ADR!	70.00	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
	24	Claytec clay plaster for interior wall finish	45.06	m ²		0.015	1500		1.80	#ADR!	ICE V 2.0 General	0.130000	#ADR!	CLAYWORKS	0.116200	#ADR!	CLAYWORKS
	25	Strawbales between framework	22.35	m ³			80		0.89	#ADR!		0.180000	#ADR!	Publikacja PK	-1.250000	#ADR!	
	26	Claytec clay plaster for interior wall finish	45.06	m ²		0.015	1500		1.80	#ADR!	ICE V 2.0 General	0.130000	#ADR!	CLAYWORKS	0.116200	#ADR!	CLAYWORKS
	27	Wall paint	45.06	m ²		2	warstwa	#ADR!	70.00	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
PARTITION WALLS	28	Wall paint	47.71	m ²		2	warstwa	#ADR!	70.00	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
	29	Plasterboard	47.71	m ²		0.015	568		6.75	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.390000	#ADR!	ICE V 3.0
	30	Framework	0.83	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	31	Mineral wool	49.48	m ²		0.100	28		16.60	#ADR!	ICE V 2.0	1.200000	#ADR!	ICE V 2.0	1.280000	#ADR!	ICE V 3.0
	32	Plasterboard	47.71	m ²		0.015	568		6.75	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.390000	#ADR!	ICE V 3.0
	33	Wall paint	47.71	m ²		2	warstwa	#ADR!	70.00	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
ROOF	34	Roof membrane	217.00	m ²				0.145	99.20	#ADR!	ICE V 2.0 PP	2.970000	#ADR!	ICE V 2.0 PP	3.430000	#ADR!	ICE V 3.0 PP
	35	Counter-battens	328.00	mb	0.0016		550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	36	Boarding	6.49	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	37	Base asphalt roofing	166.40	m ²				6	51.00	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.326000	#ADR!	ICE V 3.0
	38	Bituminous shingle	166.40	m ²				12.5	11.30	#ADR!	ICE V 2.0	0.300000	#ADR!	ICE V 2.0	0.300000	#ADR!	ICE V 3.0 tylko CO2
TIMBER	39	Construction timber - framework	40.08	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	40	Construction timber - rafter framing	8.29	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
WINDOWS	41	Window joinery list	16.5	m ²					360.00	#ADR!	ICE V 1.0	18.000000	#ADR!	ICE V 1.0	18.000000	#ADR!	ICE V 1.0
									#ADR!		MJ		#ADR!	kg CO ₂		#ADR!	kg CO ₂ e

Calculations of embodied energy and carbon dioxide – variant IV

	Item no.	Name	Quantity	Unit	Area [m ²]	Thickness [m]	Density [kg/m ³]	Basis weight consumption [kg/m ²] or [kg/m ³]	EE value [MJ/kg]	Embodied energy [MJ]	DESCRIPTION	EC value [kgCO ₂ /kg]	Carbon footprint [kgCO ₂]	DESCRIPTION 2	EC value [kgCO ₂ e/kg]	Carbon footprint [kgCO ₂ e]	DESCRIPTION 3
FOUNDATION	1	Compacted sand d=30cm	38.20	m ³	127.33		1650		0.08	5 105.4300	ICE V 2.0	0.004800	302.5440	ICE V 2.0 General	0.004384	276.3424	ICE V 3.0
	2	Blinding concrete d=5cm	6.37	m ³	127.33		1800		0.75	8 599.5000	ICE V 2.0	0.100000	1 146.6000	ICE V 2.0 General	0.097000	1 112.2020	ICE V 3.0
	3	Underfloor polystyrene d=20	102.20	m ²		0.200	18		87.40	#ADR!	ICE V 2.0	2.760000	#ADR!	ICE V 2.0	3.420000	#ADR!	ICE V 3.0
	4	Bitumen under-flooring insulation (Dysperbit)	143.78	m ²				1.5	51.00	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.221666	#ADR!	ICE V 3.0
	3	Concrete slab d=25cm. B20	127.33	m ²		0.250	1850		0.70	#ADR!	ICE V 2.0 /16/20	0.093000	#ADR!	ICE V 2.0 /16/20	0.104000	#ADR!	ICE V 3.0
	4	Reinforcement	127.33	m ²				4	35.40	#ADR!	ICE V 2.0	-			1.990000	#ADR!	ICE V 3.0 REBAR
	7	Polyethylene foil	127.33	m ²				0.185	89.30	#ADR!	ICE V 2.0	2.130000	#ADR!	ICE V 2.0	2.600000	#ADR!	ICE V 3.0
	8	Cement screed	127.33	m ²		0.050	1600		1.33	#ADR!	ICE V 2.0	0.208000	#ADR!	ICE V 2.0	0.200000	#ADR!	ICE V 3.0
	9	Glued tiles	94.78	m ²		0.020	2000		12.00	#ADR!	ICE V 2.0	0.740000	#ADR!	ICE V 2.0	0.780000	#ADR!	ICE V 3.0
EXTERNAL WALLS	10	Outer log	9.73	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	11	Wooden grid	2.35	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	12	Wind barrier	162.15	m ²				0.145	99.20	#ADR!	ICE V 2.0 PP	2.970000	#ADR!	ICE V 2.0 PP	3.430000	#ADR!	ICE V 3.0 PP
	13	Mineral wool	162.15	m ²		0.150	28		16.60	#ADR!	ICE V 2.0	1.200000	#ADR!	ICE V 2.0	1.280000	#ADR!	ICE V 3.0
	14.5	Wooden log	13.64	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	15.7	Vapor barrier foil	114.76	m ²				0.077	89.30	#ADR!	ICE V 2.0 LDPE	2.130000	#ADR!	ICE V 2.0 LDPE	2.600000	#ADR!	ICE V 3.0 LDPE
	16.8	Oriented strand board	114.76	m ²		0.022	28		15.00	#ADR!	ICE V 2.0	0.990000	#ADR!	ICE V 2.0	-1.500000	#ADR!	ICE V 3.0
	18	Drywall	114.76	m ²		0.015	568		6.75	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.390000	#ADR!	ICE V 3.0
	19.2	Wall paint	114.76	m ²		2	warstwa	#ADR!	70.00	#ADR!	ICE V 2.0 General	2.420000	#ADR!	ICE V 2.0 General	2.910000	#ADR!	ICE V 3.0 General
FLOOR (CEILING)	20.3	Oriented strand board x 2	103.11	m ²		0.044	650		15.00	#ADR!	ICE V 2.0	0.990000	#ADR!	ICE V 2.0	-1.500000	#ADR!	ICE V 3.0
	21.5	Wool between joists	103.11	m ²		0.050	28		16.60	#ADR!	ICE V 2.0	1.200000	#ADR!	ICE V 2.0	1.280000	#ADR!	ICE V 3.0
	22.7	Timber joists	1.63	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	23.8	Mineral wool between beams	103.11	m ²		0.200	28		16.60	#ADR!	ICE V 2.0	1.200000	#ADR!	ICE V 2.0	1.280000	#ADR!	ICE V 3.0
	25	Bearers	4.55	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	26.2	Floor-slab formwork	3.09	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
LOAD-BEARING STRUCTURAL WALLS	27.3	Wooden log	11.28	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
PARTITION WALLS	28.5	Wooden log	6.08	m ³			550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
ROOF	29.7	Roof membrane	217.00	m ²				0.145	99.20	#ADR!	ICE V 2.0 PP	2.970000	#ADR!	ICE V 2.0 PP	3.430000	#ADR!	ICE V 3.0 PP
	30.8	Counter-battens	328.00	mb	0.0016		550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0

	32	Boarding	6.49	m ³		550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
	33.2	Base asphalt roofing	166.40	m ²			6	51.00	#ADR!	ICE V 2.0	0.380000	#ADR!	ICE V 2.0	0.326000	#ADR!	ICE V 3.0
	34.3	Bituminous shingle	166.40	m ²			12.5	11.30	#ADR!	ICE V 2.0	0.300000	#ADR!	ICE V 2.0	0.300000	#ADR!	ICE V 3.0 tylko CO2
TIMBER	35.5	Construction timber - rafter framing	8.29	m ³		550		7.40	#ADR!	ICE V 2.0	0.590000	#ADR!	ICE V 2.0	-1.550000	#ADR!	ICE V 3.0
WINDOWS	36.7	Window joinery list	16.5	m ²				360.00	#ADR!	ICE V 1.0	18.000000	#ADR!	ICE V 1.0	18.000000	#ADR!	ICE V 1.0
									#ADR!	MJ		#ADR!	kg CO ₂		#ADR!	kg CO ₂ e

Investment cost estimate

No.	Basis	Description of the works	IU	Quantity	Unit price	Net value
	Cost estimate	Cost estimate				
1	Structural element	Outer wall (variant I)				
1	KNR 202/801/2 (1)	Atlas cement-lime plaster	m2	1	20.30	20.30
2	KNR 27/160/2	Porotherm 25 P+W hollow brick	m2	1	121.85	121.85
3	DC 18/401/2 (1)	Thermal insulation of the building walls with Styrofoam boards and covering of elevations with plaster coating – Atlas silicone-silicate plaster . Styrofoam Termonium Plus	m2	1	140.77	140.77
In total Outer wall (variant I)						282.92
2	Structural element	Outer wall (variant II)				
4	KNR 202/801/2 (1)	Atlas cement-lime plaster	m2	1	20.30	20.30
5	KNR 21/4004/5 (2)	Steico Protect H board	m2	1	56.40	56.40
6	KNR 21/4001/1	Wooden studs 6 x 30 cm	m2	1	134.41	134.41
7	Own calculation	Straw bales between studs	m2	1	4.78	4.78
8	KNR 21/4004/5 (2)	Steico Flex board	m2	1	71.24	71.24
9	KNR 202/801/2 (1) analogy	Claytec clay plaster	m2	1	29.99	29.99
In total Outer wall (variant II)						317.12
3	Structural element	Outer wall (variant III)				
10	KNR 21/4004/1 (1)	Ventilated boarding	m2	1	43.50	43.50
11	KNR 912/203/3 (1)	Wind barrier	m2	1	6.81	6.81
12	KNR 21/4004/7 (5)	Waterproof plywood	m2	1	85.34	85.34
13	KNR 21/4001/1	Wooden studs 6 x 44 cm	m2	1	149.34	149.34
14	Own calculation	Straw bales between studs	m2	1	7.18	7.18
15	KNR 912/203/3 (1)	Vapor barrier foil	m2	1	5.27	5.27
16	KNR 21/4004/4 (4) analogy	OSB 22 mm board	m2	1	45.40	45.40
17	KNR 202/2006/4 (2)	G-K Termoline plasterboard	m2	1	45.49	45.49
In total Outer wall (variant III)						388.33
4	Structural element	Outer wall (variant IV)				
18	KNRW 202/406/5 analogy	Exterior wooden pine log 6 x 18 cm	m3	0.06	1 929.55	115.77
19	KNR 912/203/3 (1)	Wind barrier	m2	1	6.81	6.81
20	KNR 21/4001/1	Wooden studs 5 x 15 cm	m2	1	119.46	119.46
21	KNR 202/613/6	Thermal and sound insulation systems made of mineral wool. with vertical	m2	1	46.58	46.58
22	KNRW 202/406/5 analogy	Rectangular pine wood log 20 x 18 cm	m3	0.2	1 929.55	385.91
23	KNR 912/203/3 (1)	Vapor barrier foil	m2	1	5.27	5.27
24	KNR 21/4004/4 (4) analogy	OSB 22 mm board	m2	1	45.40	45.40
25	KNR 202/2006/4 (2)	G-K Termoline plasterboard	m2	1	45.49	45.49
In total Outer wall (variant IV)						770.69
In total Net cost estimate						1 759.06