

Two-storey House with Flat Roof

Timber frame-panel construction set

Transmission heat losses on exterior envelope of the house (outer walls, roof, windows and doors)
comply with EnEV 2009

House envelope, U, W/m²K, does not exceed							0,31	
Outer walls, ceiling, roof, inner walls, inner partitions, windows and outer doors								
Outer walls - plaster ready								
Roof - roofing ready								
Windows and outer doors mounted into outer walls								
Inner finishing layer - gypsum plasterboard								
Electric pipes and sockets installed in walls								
House Inner area, m²							113	
	Thickness, mm	U, W/m²K	Area, m²	Price / m²		Cost		
Outer walls:								
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard, outer plaster ready	267	0,21	174,72	€ 115	€	20 171		
Inner walls:								
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard	194	0,25	28,56	€ 106	€	3 018		
Inner partitions:								
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard	144	0,36	59,64	€ 90	€	5 382		
Ceilings:								
Insulation basalt wool IZOVAT, OSB 3, timber, gypsum plasterboard	310	0,15	59,86	€ 135	€	8 065		
Flat Roof:								
Insulation basalt wool IZOVAT, OSB 3, timber, gypsum plasterboard	335	0,13	64,00	€ 129	€	8 260		
Windows, outer doors:								
Profile Rehau Euro 70 glazing 4i-14Ar-4-14Ar-4i	-	1,28	30,08	€ 237	€	7 123		
Total cost of construction set				€	52 019			
Price / m² inner area				€	460			

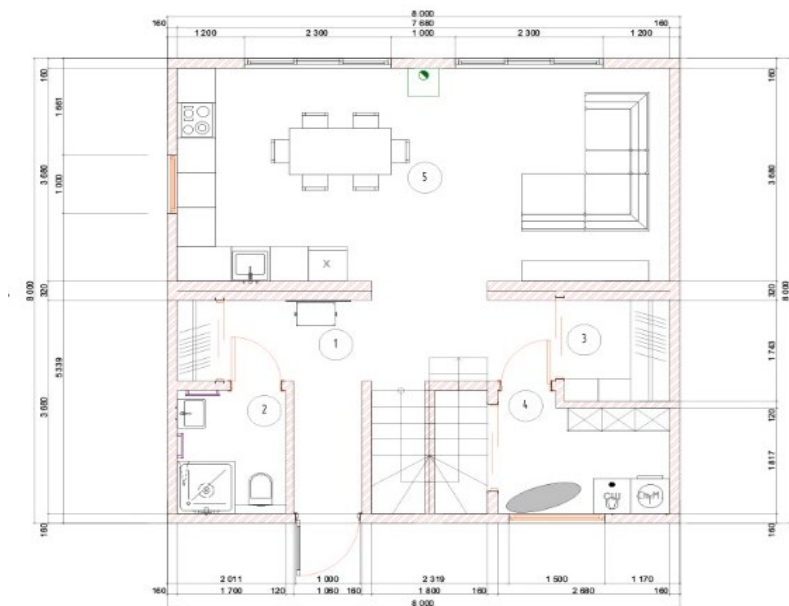
Two-storey House with Flat Roof

House Inner area, m²

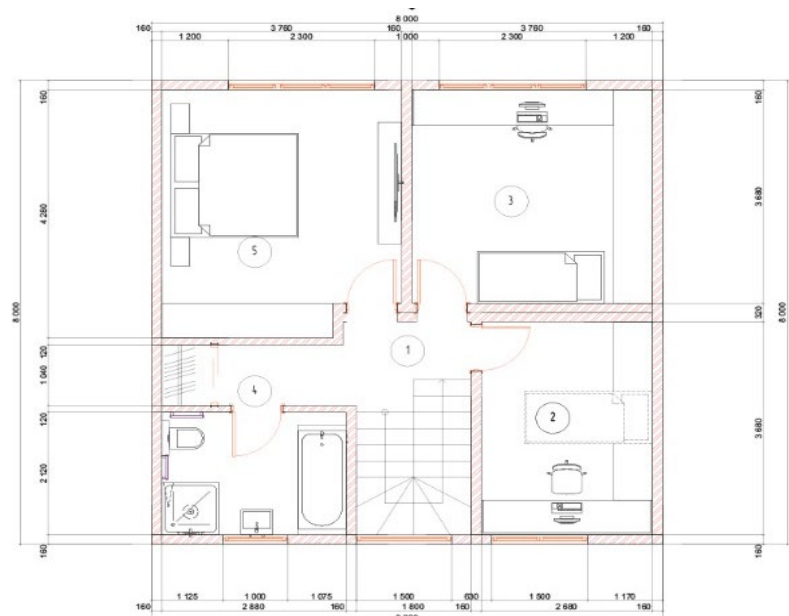
113



Ground Floor:

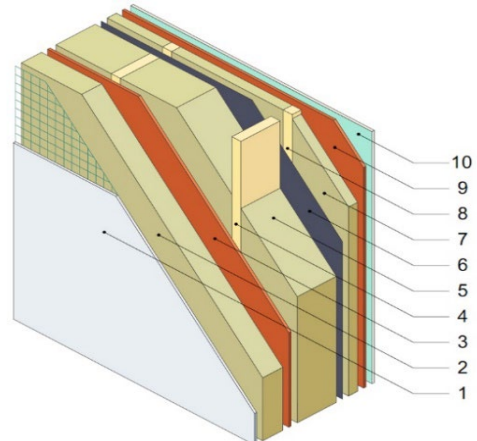
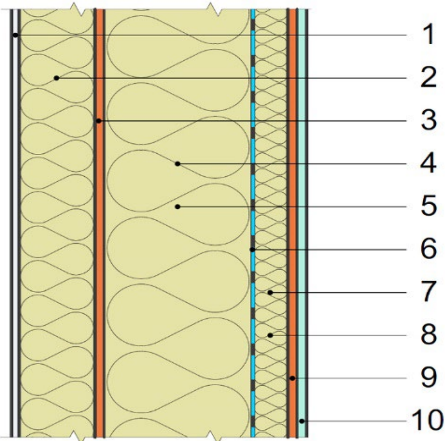


First floor:



Outer Walls (Outer Plaster Ready)

Thickness, mm	266,60
Transmission heat loss, U, W/m ² K	0,21
Area, m ²	204,80
Apertures, m ²	30,08
Estimated Area, m²	174,72

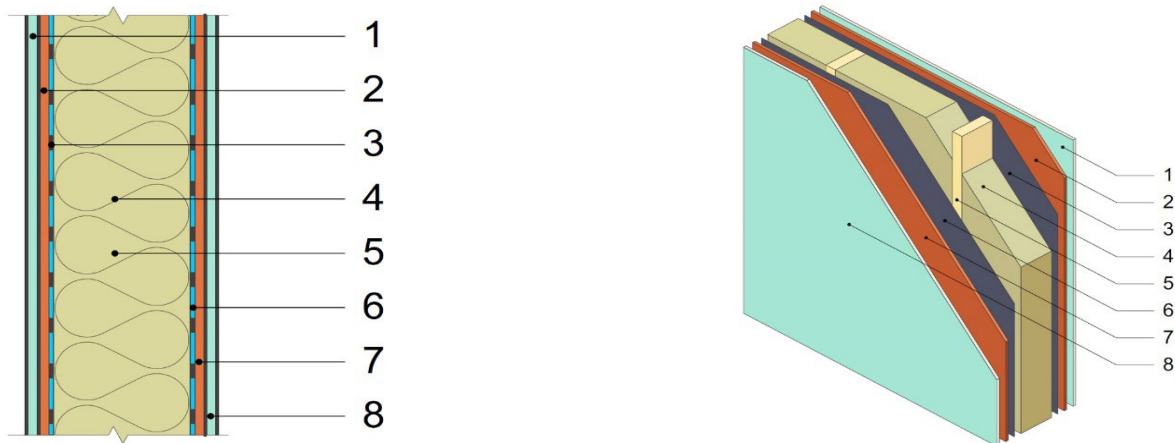


Material	Thickness, mm
Facade plaster Ceresit CT 85 FLEX Mortar	1
Facade mesh Ceresit CT325 Glass-Fibre Mesh 160 g /m2	10,00
Insulation basalt wool IZOVAT, 135 kg/m3 30 mm	2
OSB 3 Egger 12 mm	3
Timber 45*145 mm C24 CE	4
Insulation basalt wool IZOVAT, 40 kg/m3 50 mm	5
Insulation basalt wool IZOVAT, 40 kg/m3 100 mm	145,00
Vapor Control Layer SIGA MajRex	6
Timber 45x45 mm	8
OSB 3 Egger 12 mm	9
Gypsum Plasterboard Knauf	10
Total Thickness, mm	266,60

Total cost	€	20 171,10
Price / m² estimated area	€	115,45

Inner walls

Thickness, mm	194,20
Transmission heat loss, U, W/m ² K	0,25
Area, m ²	28,56
Apertures, m ²	0,00
Estimated Area, m²	28,56

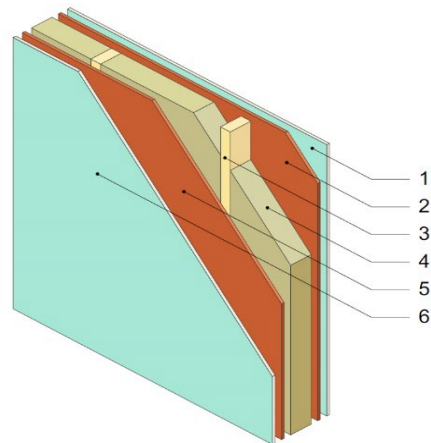
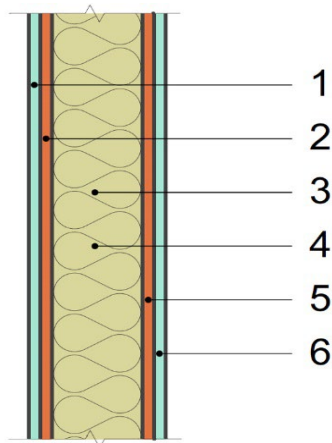


Material	Thickness, mm	
Gypsum Plasterboard Knauf	1	12,50
OSB 3 Egger 12 mm	2	12,00
Vapor Control Layer SIGA MajRex	3	0,10
Insulation basalt wool IZOVAT, 40 kg/m ³ 50 mm	4	145,00
Insulation basalt wool IZOVAT, 40 kg/m ³ 100 mm		
Timber 45*145 mm C24 CE	5	
Vapor Control Layer SIGA MajRex	6	0,10
OSB 3 Egger 12 mm	7	12,00
Gypsum Plasterboard Knauf	8	12,50
Total Thickness, mm		194,20

Total cost	€	3 018,20
Price / m² estimated area	€	105,68

Inner Partitions

Thickness, mm	144,00
Transmission heat loss, U, W/m ² K	0,36
Area, m ²	67,20
Apertures, m ²	7,56
Estimated Area, m²	59,64

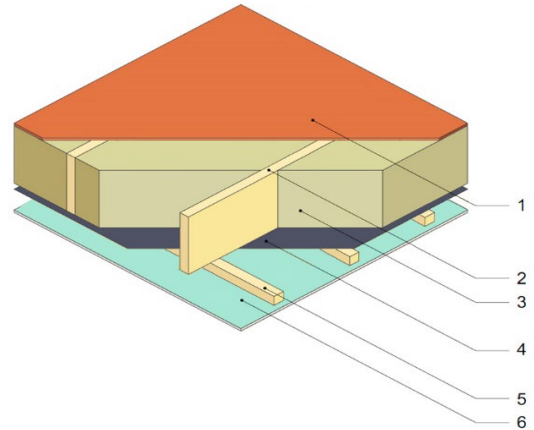
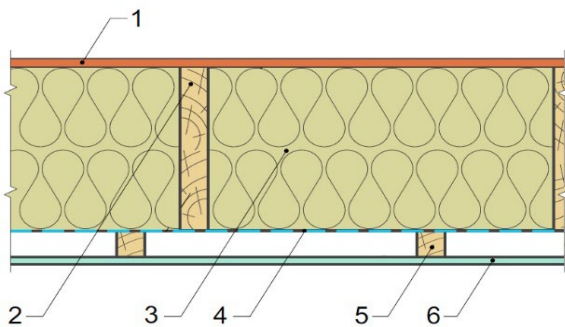


Material	Thickness, mm	
Gypsum Plasterboard Knauf	1	12,50
OSB 3 Egger 12 mm	2	12,00
Timber 45*95 mm C24 CE	3	95,00
Insulation basalt wool IZOVAT, 40 kg/m ³ 100 mm	4	
OSB 3 Egger 12 mm	5	12,00
Gypsum Plasterboard Knauf	6	12,50
Total Thickness, mm		144,00

Total cost	€	5 381,84
Price / m² estimated area	€	90,24

Ceilings

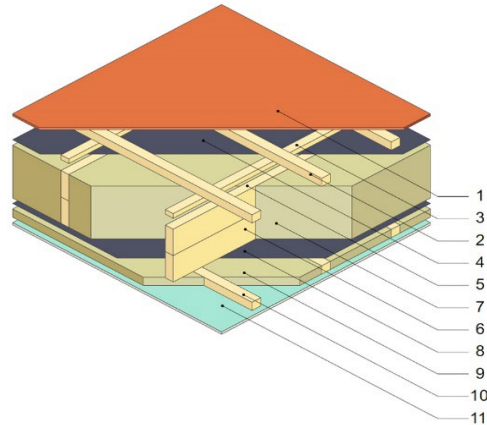
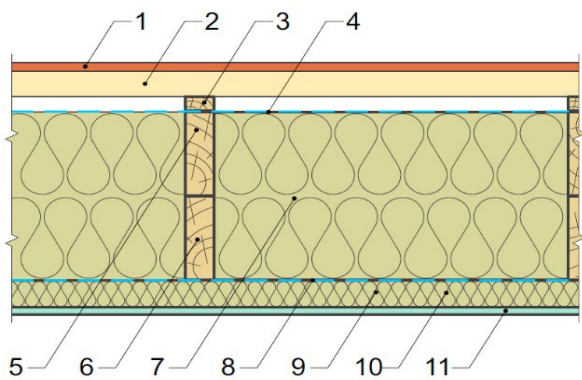
Thickness, mm	309,60
Transmission heat loss, U, W/m ² K	0,15
Area, m ²	64,00
Apertures, m ²	4,14
Estimated Area, m²	59,86



Material	Thickness, mm	
OSB 3 Egger 22 mm	1	22,00
Glued timber 45*2*245 mm C24 CE	2	
Insulation basalt wool IZOVAT, 40 kg/m ³ 100 mm	3	245,00
Insulation basalt wool IZOVAT, 40 kg/m ³ 100 mm		
Insulation basalt wool IZOVAT, 40 kg/m ³ 50 mm		
Vapor Control Layer SIGA MajRex	4	0,10
Timber batten 30x45 mm	5	30,00
Gypsum Plasterboard Knauf	6	12,50
Total Thickness, mm		309,60
Total cost	€	8 064,73
Price / m² estimated area	€	134,73

Flat Roof (Roofing Ready)

Thickness, mm	334,70
Transmission heat loss, U, W/m ² K	0,13
Estimated Area, m²	64,00



Material	Thickness, mm	
OSB 3 Egger 12 mm	1	12,00
Timber batten 45x50 mm	2	45,00
Timber batten 25x45 mm	3	25,00
Super-diffusive membrane Strotex Basix 1300	4	0,10
Timber 45*195 mm C24 CE	5	195,00
Insulation basalt wool IZOVAT, 40 kg/m ³ 100 mm	7	
Insulation basalt wool IZOVAT, 40 kg/m ³ 100 mm		
Vapor Control Layer SIGA MajRex	8	0,10
Insulation basalt wool IZOVAT, 40 kg/m ³ 50 mm	9	45,00
Timber 45x50 mm	10	
Gypsum Plasterboard Knauf	11	12,50
Total Thickness, mm		334,70

Total cost	€	8 260,14
Price / m² estimated area	€	129,06

Windows, outer doors

Estimated Area, m²

30,08



Material

Rehau Euro 70

Profile thickness (depends on window openings)

86 mm - 72 mm

Glazing 4i-14Ar-4-14Ar-4i, 40mm

U_g=0,83 W/m²K

Fittings MACO, G-U

Sealing tapes Alenor

Average transmission heat loss, including air heat losses U_w, W/m²K

1,28

Total cost

€ **7 122,94**

Price / m² estimated area

€ **236,80**