

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 KfW Effizienzhaus 40 Plus

House envelope, U, W/m²K, does not exceed							0,18
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	387	0,11	174,72	€	140	€	24 493
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	430	0,09	64,00	€	152	€	9 717
Windows, outer doors:							
Profile Rehau Geneo glazing 4i-16ArTep-4-16ArTep-4i	-	0,76	30,08	€	336	€	10 101
Total cost of construction set				€	60 776		
Price / m² inner area				€	538		

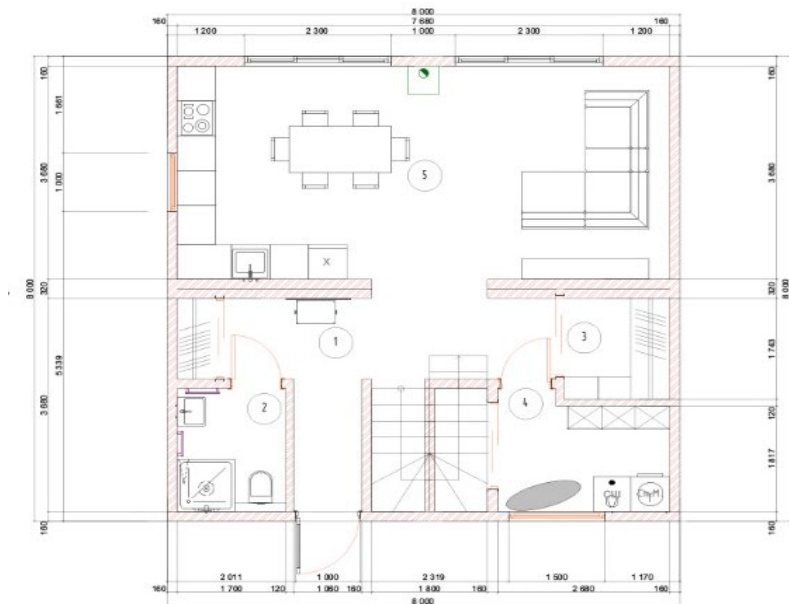
Two-storey House with Flat Roof

House Inner area, m²

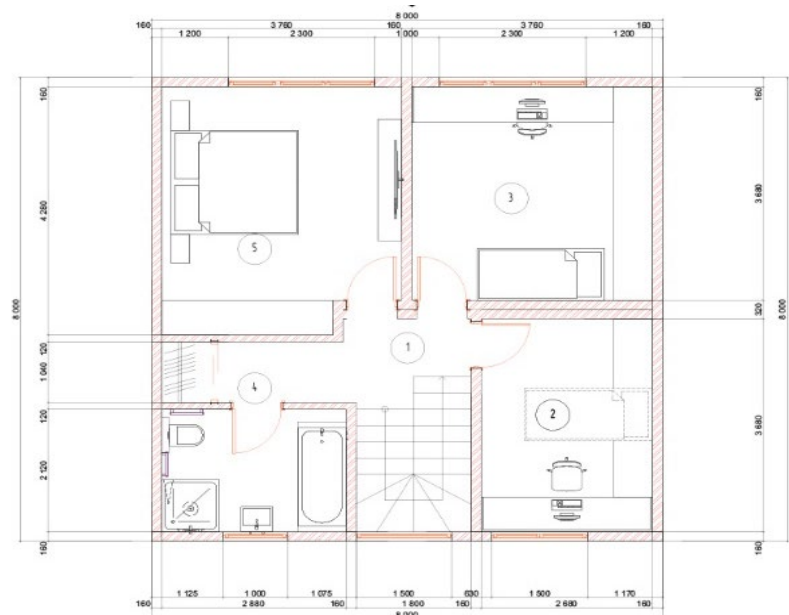
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Ground Floor:

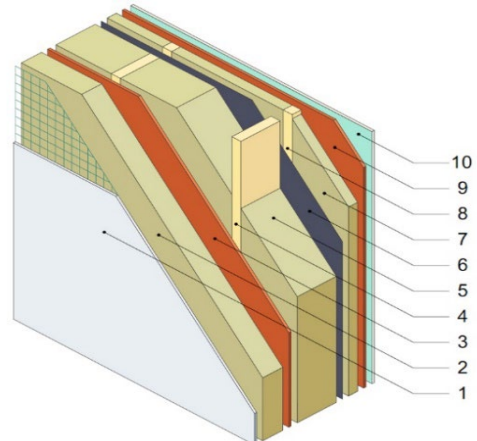
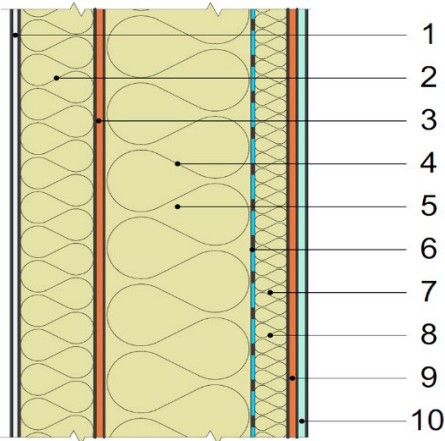


First floor:



Outer Walls (Outer Plaster Ready)

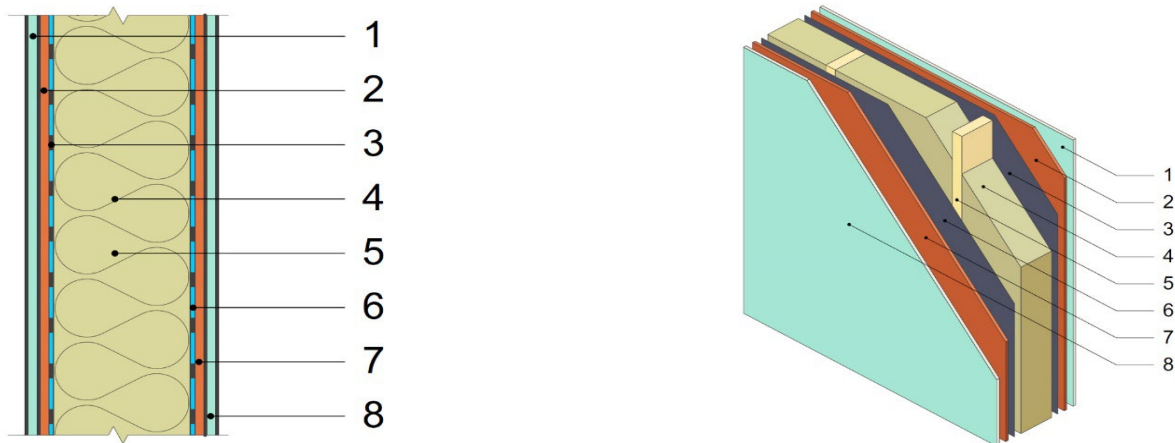
Thickness, mm	386,60
Transmission heat loss, U, W/m ² K	0,11
Area, m ²	204,80
Apertures, m ²	30,08
Estimated Area, m²	174,72



Material	Thickness, mm	
Facade plaster Ceresit CT 85 FLEX Mortar	1	10,00
Facade mesh Ceresit CT325 Glass-Fibre Mesh 160 g /m2	2	100,00
OSB 3 Egger 12 mm	3	12,00
Timber 45*195 mm C24 CE	4	195,00
Insulation basalt wool IZOVAT, 40 kg/m3 100 mm	5	45,00
Insulation basalt wool IZOVAT, 40 kg/m3 100 mm	6	0,10
Vapor Control Layer SIGA MajRex	7	12,00
Insulation basalt wool IZOVAT, 40 kg/m3 50 mm	8	12,50
Timber 45x45 mm	9	
OSB 3 Egger 12 mm	10	
Gypsum Plasterboard Knauf		
Total Thickness, mm		386,60
Total cost	€	24 493,48
Price / m² estimated area	€	140,19

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

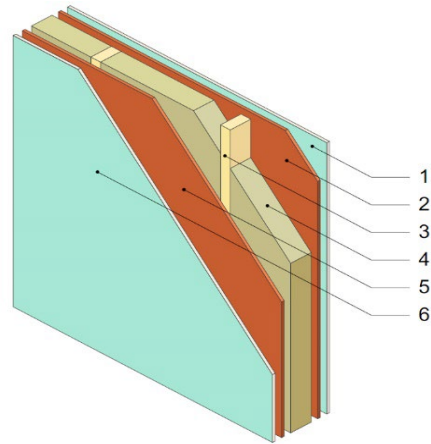
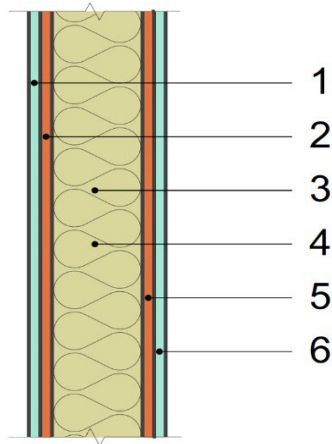


Material	Thickness, mm	
Gypsum Plasterboard Knauf	1	12,50
OSB 3 Egger 12 mm	2	12,00
Vapor Control Layer SIGA MajRex	3	0,10
Insulation basalt wool IZOVAT, 40 kg/m ³ 50 mm	4	145,00
Insulation basalt wool IZOVAT, 40 kg/m ³ 100 mm		
Timber 45*145 mm C24 CE	5	
Vapor Control Layer SIGA MajRex	6	0,10
OSB 3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

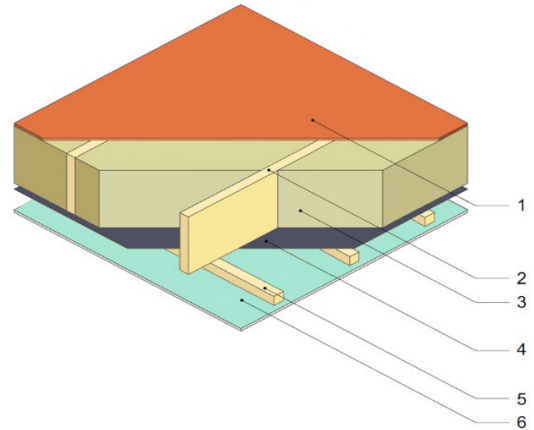
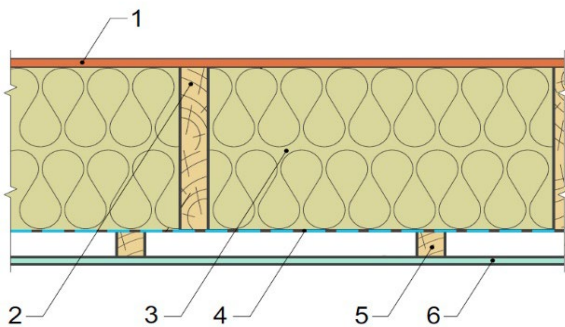


Material	Thickness, mm	
Gypsum Plasterboard Knauf	1	12,50
OSB 3 Egger 12 mm	2	12,00
Timber 45*95 mm C24 CE	3	95,00
Insulation basalt wool IZOVAT, 40 kg/m ³ 100 mm	4	
OSB 3 Egger 12 mm	5	12,00
Gypsum Plasterboard Knauf	6	12,50
Total Thickness, mm		144,00

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

Ceilings

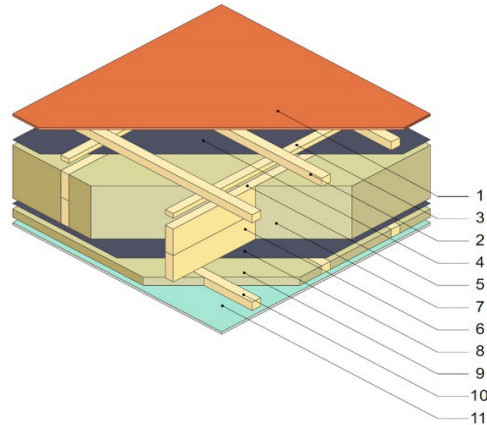
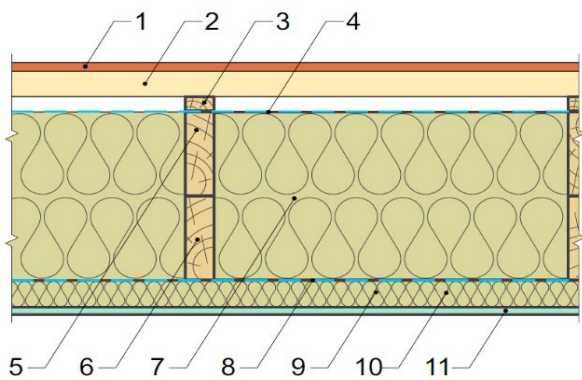
Thickness, mm	309,60
Transmission heat loss, U, W/m ² K	0,15
Area, m ²	64,00
Apertures, m ²	4,14
Estimated Area, m²	59,86



Material	Thickness, mm	
OSB 3 Egger 22 mm	1	22,00
Glued timber 45*2*245 mm C24 C€	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	429,70
Transmission heat loss, U, W/m ² K	0,09
Estimated Area, m²	64,00

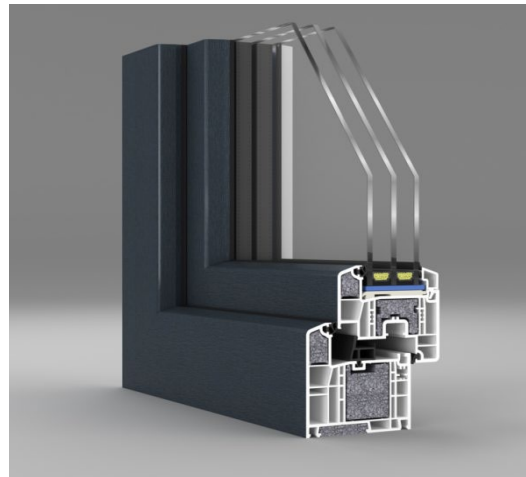


Material	Thickness, mm	
OSB 3 Egger 12 mm	1	12,00
Timber batten 45x50 mm	2	45,00
Timber batten 25x45 mm	3	25,00
Super-diffusive membrane Strotex Basix 1300	4	0,10
Timber 45*145 mm C24 CE	5	290,00
Timber 45*145 mm C24 CE	6	
Insulation basalt wool IZOVAT, 40 kg/m ³ 100 mm	7	
Insulation basalt wool IZOVAT, 40 kg/m ³ 100 mm		
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		429,70
Total cost	€	9 716,70
Price / m² estimated area	€	151,82

Windows, outer doors

Estimated Area, m²

30,08



Material

Rehau Geneo profile

Profile thickness (depends on window openings)

86 mm - 72 mm

Glazing 4i-16ArTep-4-16ArTep-4i, 44mm

U_g=0,57 W/m²K

Fittings MACO, G-U

Sealing tapes Alenor

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

0,76

Total cost

€ 10 100,86

Price / m² estimated area

€ 335,80