



WEINMANN FRAME-PANEL MANUFACTURING  
PREFAB PANELS FOR WALLS, ROOF, FLOOR

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# FRAME-PANEL CONSTRUCTION SETS



USDM performs manufacturing of timber prefab frame-panel construction sets at own production facility at Svalyava, Transcarpathian region of Ukraine, fully equipped with WEINMANN manufacturing line.

USDM performs export of prefab construction sets to EC. Authorized and experienced representatives in Germany, Czechia, France. Financing of export contracts is provided by Ukrainian banks.

We are customer-oriented and technically qualified. For prefab timber frame-panel construction sets, based on requirements of the customer, the specific house project, the local requirements of the destination construction place (climate, requirements) we offer:

- Specific design of sandwiches for exterior and interior walls, roof, floor (if required)
- Sandwiches' materials selection according to wishes and requirements of the customer.
- Specific design of windows for on-factory installation. We use Rehau or Ukrainian based profiles and glazing if required.
- Load-bearing frame calculations and checking of the project static load bearings.
- Installing pipes and sockets for electricity and other niches for internal engineering networks, simplifying future construction.

# FRAME-PANEL SETS. QUALITY



## Energy Efficiency

We develop and manufacture prefab timber-frame houses considering the modern energy efficiency requirements. The envelope of the house in terms of heat losses may comply with the requirements of KfW Effizienzhaus 40 Plus.

## Ecological and safe

We use basalt (stone) wool as main insulation material. That is probably the best insulation that is completely neutral, does not absorb humidity, preserve its physical properties under influence of high and low temperatures, has perfect fire prevention properties. Timber of Ukrainian origin is ecological, CE certified, and treated with antibacterial and counter-fire retardant.

## Quality of manufacture

All stages of manufacturing are performed using Weinmann machines and equipment, that includes CNC controlled machines and precise carpentry tables. Using of CNC controlled machines ensures minimum deviation in timber and panels and further easy and qualitative assembly of the house.





# FRAME-PANEL SETS. MATERIALS



For 10 years we manufacture prefab timber frame panel houses. We gained valuable experience, created team of professionals that are capable to deal with complicated equipment, perform sophisticated routine of fabrication.

We have well-established supply chains for all necessary materials and raw materials for production of frame-panel house sets. All materials are CE certified, selection of materials is based on technical requirements of thermal losses, humidity prevention requirements, soundproofing, fire prevention based on CE recommendations and standards.

## Wood of Ukrainian origin

Dry (moisture up to 14%), calibrated timber of the 1st grade, with strength class C18, C24, C30. All wooden parts are treated with a bio-fire retardant, which protects the wood from biological destruction and adds fire-resistant properties.

## Insulation

IZOVAT mineral basalt wool of Ukrainian origin (produced on a modern high-tech production line of OBIO LLC, the company's products are exported to EU countries). We have work experience and established contacts for the supply of ISOVER, ROCKWOOL and other mineral insulation. Projects were carried out using STEICO flex wooden organic insulation.





# FRAME-PANEL SETS. MATERIALS



**OSB 3 Egger.** We have experience and established contacts with other suppliers, including Kronospan UA (production enterprise in Ukraine, Novovolynsk, part of the Kronospan group).

## Plates for panels

In addition to OSB, we use "Betopan" CSP and CSP of Ukrainian origin, "Knauf" plasterboard, "Fermcell" gypsum fiberboard and other plates of Ukrainian and European origin as external boards for wall panels, floors, ceilings and coatings.

## Membranes and pellicles.

Super-diffusive membrane Strotex Basic 1300 and vapor control Layer Strotex 110 PI of Polish origin. Experience working with German membranes and films (DELTA®-LUXX and DELTA®-VENT N), membranes and films of Ukrainian origin.

## External insulation

**IZOVAT basalt wool of high density (130-140 kg)** or other (ISOVER, ROCKWOOL, STEIKO Protect)







OUTER AND INNER WALLS AND PARTITIONS, ROOF  
EXAMPLES OF SANDVICHES, INDICATIVE PRICING

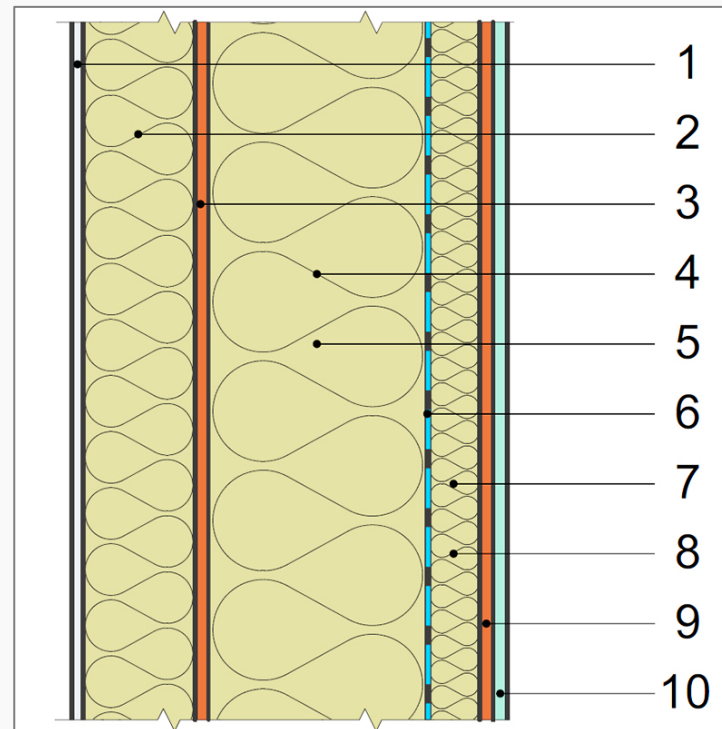
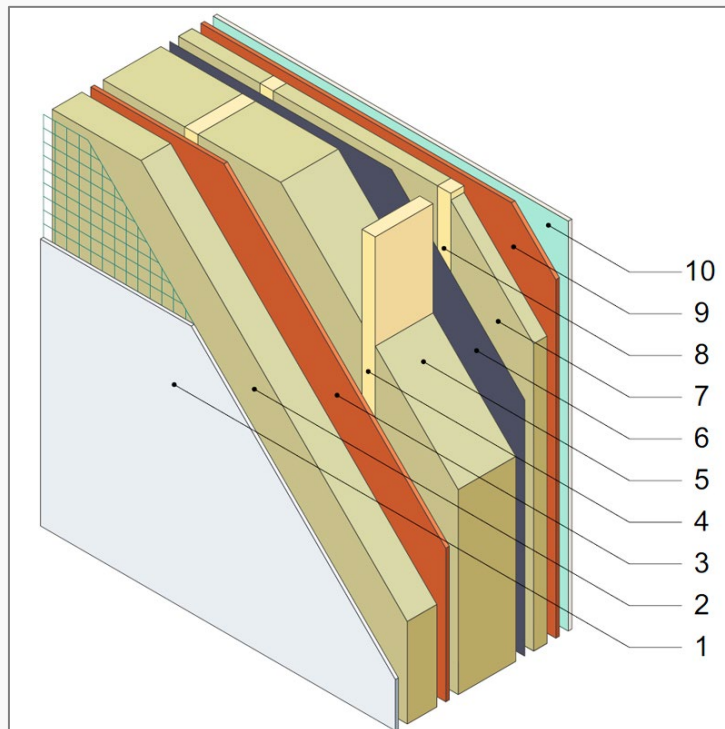
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# EXTERNAL WALLS

External wall with 300 mm of basalt wool insulation.  
Developed to comply with KfW Effizienzhaus 40 Plus.

Outer plaster ready. Electric pipes and sockets installed.  
Price is indicative and may vary in dependance of house project.



Thickness, mm	386,60
Transmission heat loss, U, W/m <sup>2</sup> K	0,11
<b>Price / m<sup>2</sup></b>	<b>€ 140,19</b>

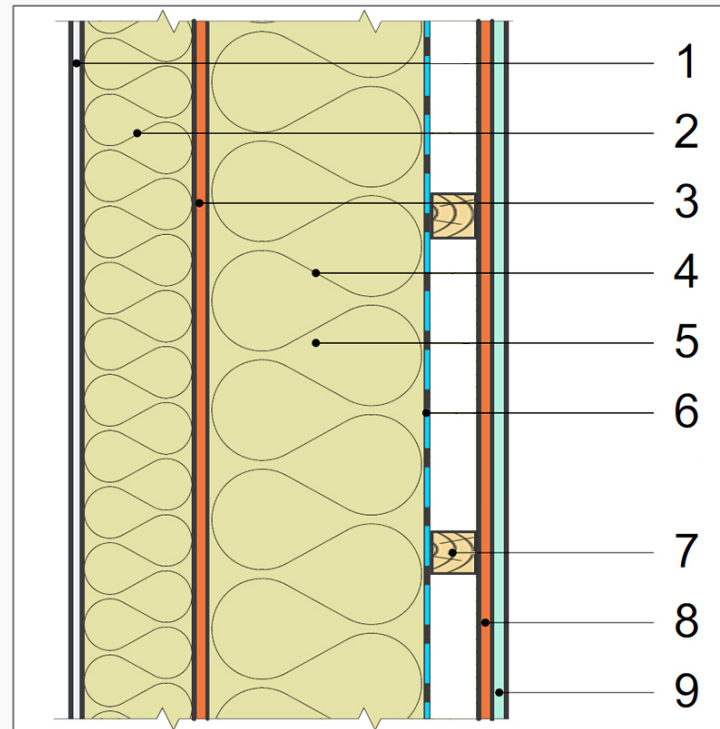
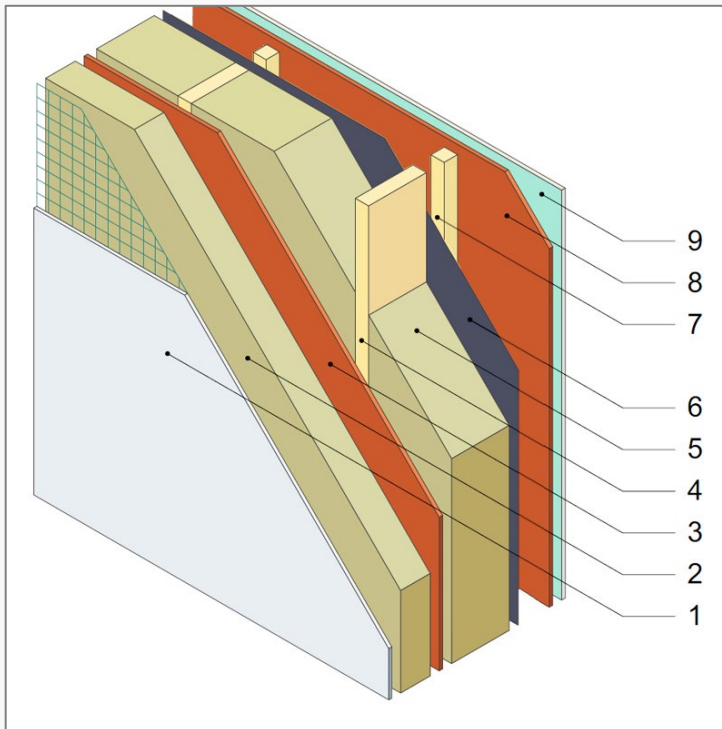
	Material	Thickness, mm
1	Facade plaster Ceresit CT 85 FLEX Mortar	10,00
	Facade mesh Ceresit CT325 Glass-Fibre 160 g/m <sup>2</sup>	
2	Insulation basalt wool IZOVAT, 135 kg/m <sup>3</sup> 100 mm	100,00
3	OSB 3 Egger 12 mm	12,00
4	Timber 45*195 mm C24 CE	
5	Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 200 mm	195,00
6	Vapor Control Layer SIGA MajRex	0,10
7	Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 50 mm	
8	Timber 45x45 mm	45,00
9	OSB 3 Egger 12 mm	12,00
10	Gypsum Plasterboard Knauf	12,50
	<b>Total Thickness, mm</b>	<b>386,60</b>



# EXTERNAL WALLS

External wall with 180 mm of basalt wool insulation.  
Developed to comply with EnEV 2009.

Outer plaster ready. Electric pipes and sockets installed.  
Price is indicative and may vary in dependence of house project.



Thickness, mm	266,60
Transmission heat loss, U, W/m <sup>2</sup> K	0,21
<b>Price / m<sup>2</sup></b>	<b>€ 115,45</b>

	Material	Thickness, mm
1	Fasade plaster Ceresit CT 85 FLEX Mortar	10,00
	Fasade mesh Ceresit CT325 Glass-Fibre 160 g/m <sup>2</sup>	
2	Insulation basalt wool IZOVAT, 135 kg/m <sup>3</sup> 30 mm	30,00
3	OSB 3 Egger 12 mm	12,00
4	Timber 45*145 mm C24 CE	145,00
5	Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 150 mm	150,00
6	Vapor Control Layer SIGA MajRex	0,10
7	Timber 45x45 mm	45,00
8	OSB 3 Egger 12 mm	12,00
9	Gypsum Plasterboard Knauf	12,50
	<b>Total Thickness, mm</b>	<b>266,60</b>

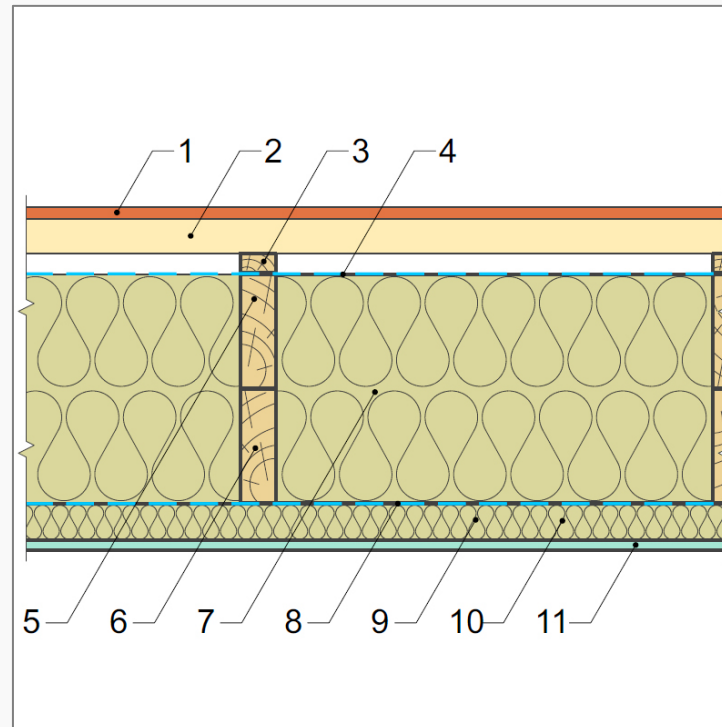
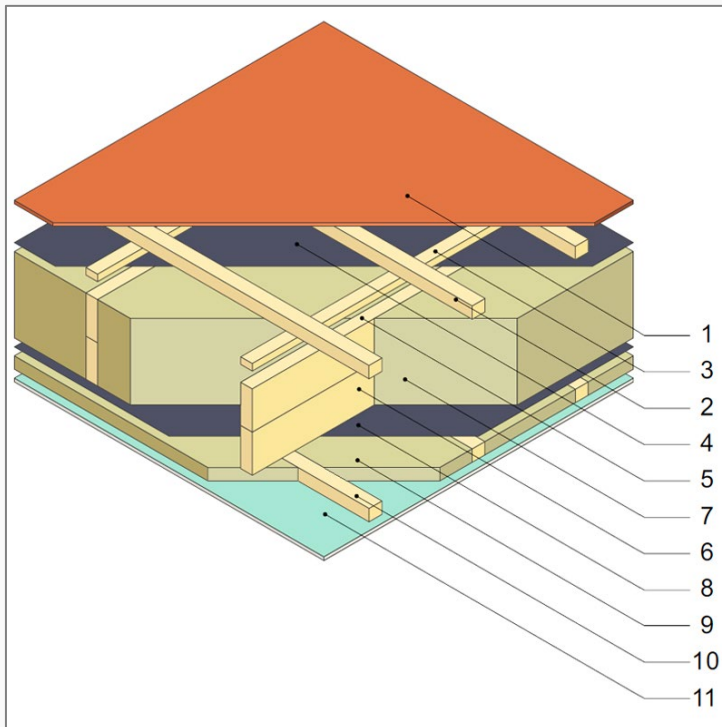


# FLAT ROOF

Flat roof with 350 mm of basalt wool insulation.  
Developed to comply with KfW Effizienzhaus 40 Plus.

Roofing ready.

Price is indicative and may vary in dependence of house project.



Thickness, mm	429,70
Transmission heat loss, U, W/m <sup>2</sup> K	0,09
<b>Price / m<sup>2</sup></b>	<b>€ 151,82</b>

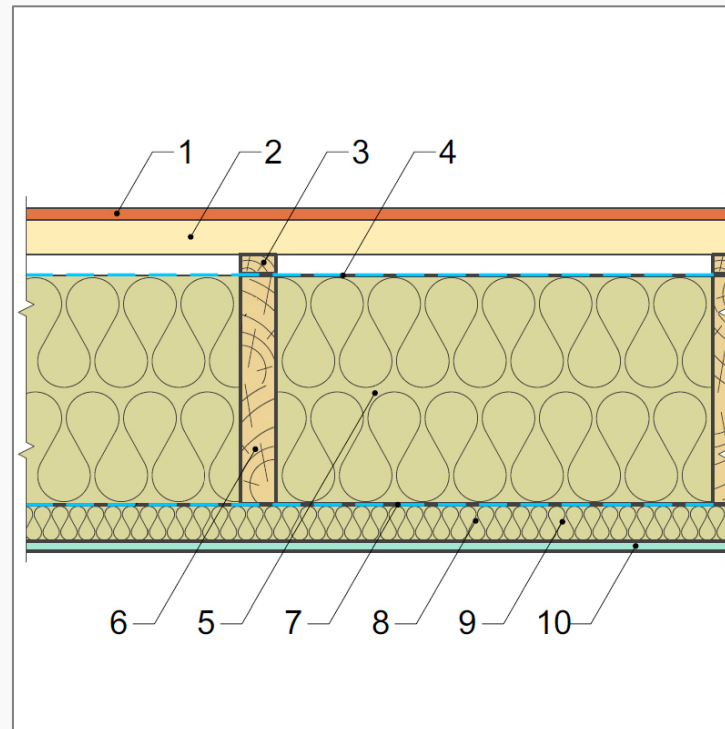
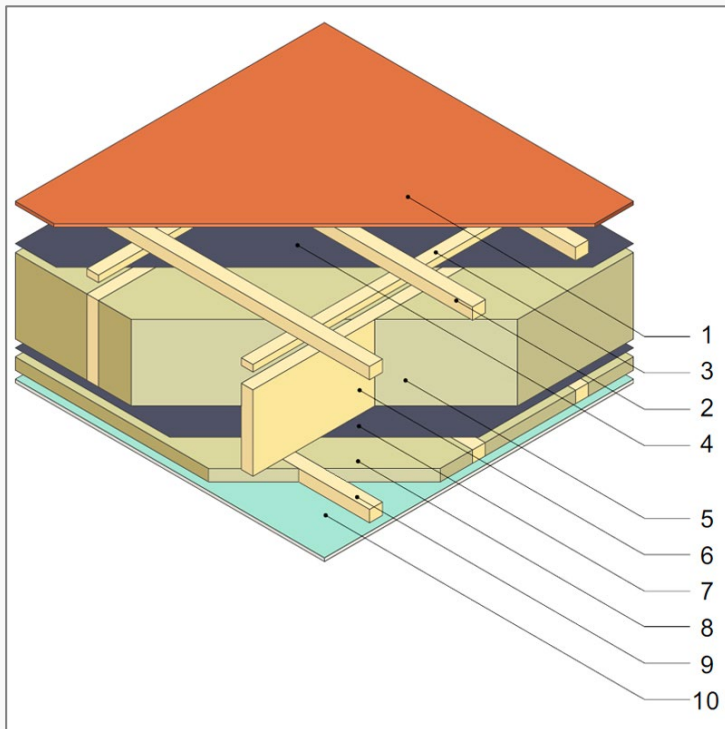
	Material	Thickness, mm
1	OSB 3 Egger 12 mm	12,00
2	Timber batten 45x50 mm	45,00
3	Timber batten 25x45 mm	25,00
4	Super-diffusive membrane Strotex Basix 1300	0,10
5	Timber 45*145 mm C24 CE	
6	Timber 45*145 mm C24 CE	290,00
7	Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 300 mm	
8	Vapor Control Layer SIGA MajRex	0,10
9	Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 50 mm	
10	Timber 45x50 mm	45,00
11	Gypsum Plasterboard Knauf	12,50
	<b>Total Thickness, mm</b>	<b>429,70</b>

# FLAT ROOF

Flat roof with 250 mm of basalt wool insulation.  
Developed to comply with EnEV 2009.

Roofing ready.

Price is indicative and may vary in dependence of house project.



Thickness, mm	334,70
Transmission heat loss, U, W/m <sup>2</sup> K	0,13
<b>Price / m<sup>2</sup></b>	<b>€ 129,06</b>

	Material	Thickness, mm
1	OSB 3 Egger 12 mm	12,00
2	Timber batten 45x50 mm	45,00
3	Timber batten 25x45 mm	25,00
4	Super-diffusive membrane Strotex Basix 1300	0,10
5	Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 200 mm	195,00
6	Timber 45*195 mm C24 CE	
7	Vapor Control Layer SIGA MajRex	0,10
8	Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 50 mm	45,00
9	Timber 45x50 mm	
10	Gypsum Plasterboard Knauf	12,50
	<b>Total Thickness, mm</b>	<b>334,70</b>

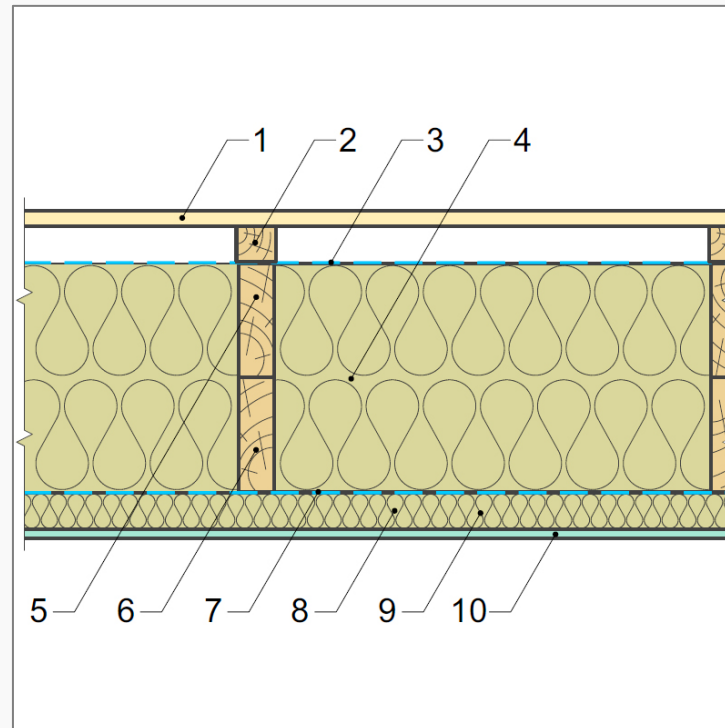
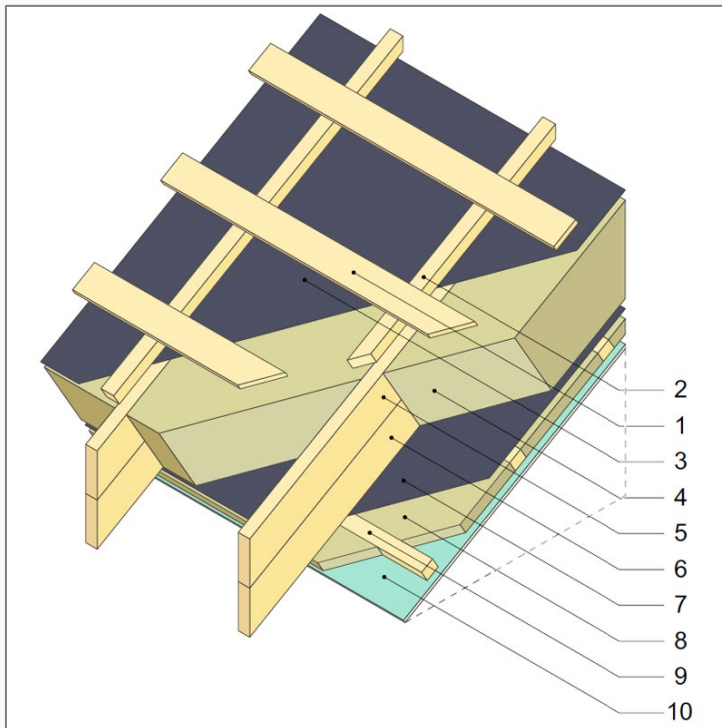


# PITCHED ROOF

Pitched roof with 350 mm of basalt wool insulation.  
Developed to comply with KfW Effizienzhaus 40 Plus.

Roofing ready.

Price is indicative and may vary in dependence of house project.



Thickness, mm	412,70
Transmission heat loss, U, W/m <sup>2</sup> K	0,11
<b>Price / m<sup>2</sup></b>	<b>€ 133,39</b>

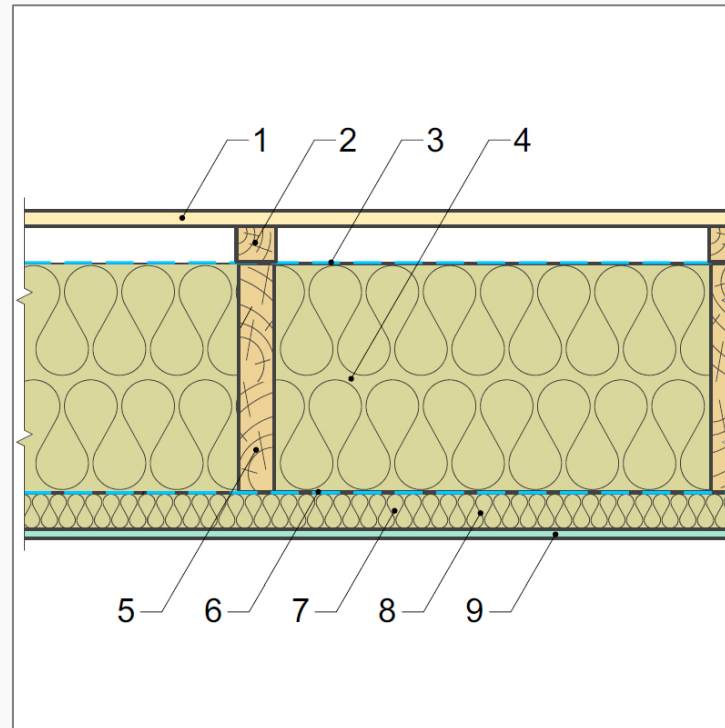
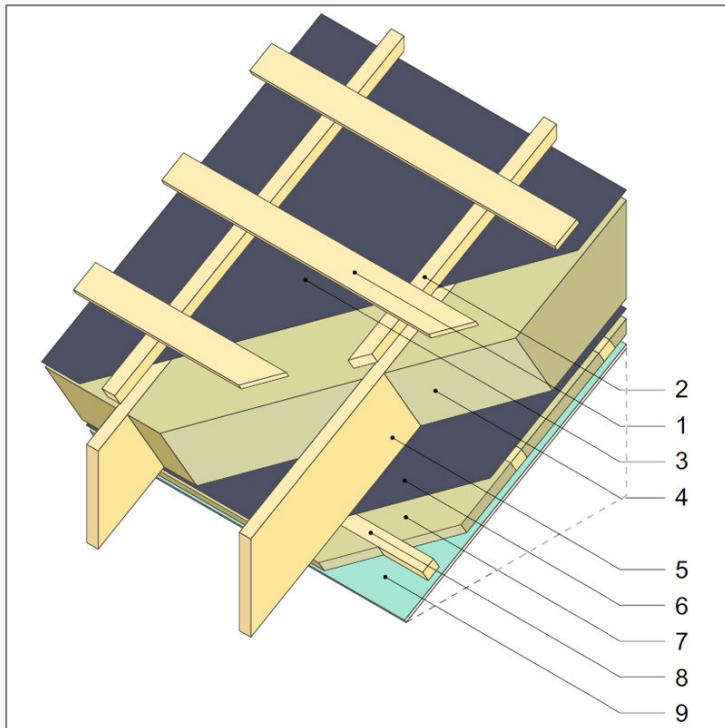
Material	Thickness, mm
1 Timber batten 20x100 mm	20,00
2 Timber batten 45x50 mm	45,00
3 Super-diffusive membrane Strotex Basix 1300	0,10
4 Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 300 mm	
5 Timber 45*145 mm C24 CE	290,00
6 Timber 45*145 mm C24 CE	
7 Vapour Control Layer SIGA MajRex	0,10
8 Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 50 mm	45,00
9 Timber 45x50 mm	
10 Gypsum Plasterboard Knauf	12,50
<b>Total Thickness, mm</b>	<b>412,70</b>

# PITCHED ROOF

Pitched roof with 250 mm of basalt wool insulation.  
Developed to comply with EnEV 2009.

Roofing ready.

Price is indicative and may vary in dependence of house project.



Thickness, mm	317,70
Transmission heat loss, U, W/m <sup>2</sup> K	0,15
<b>Price / m<sup>2</sup></b>	<b>€ 116,64</b>

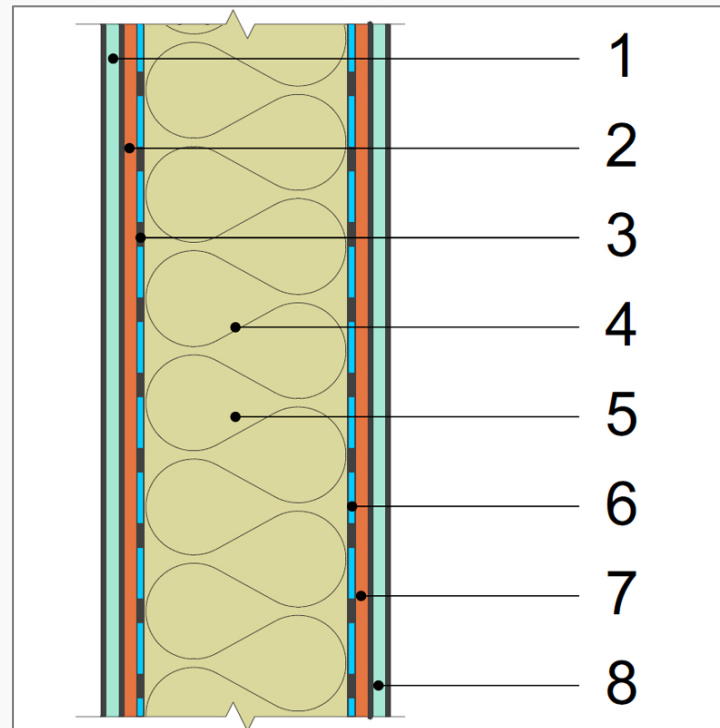
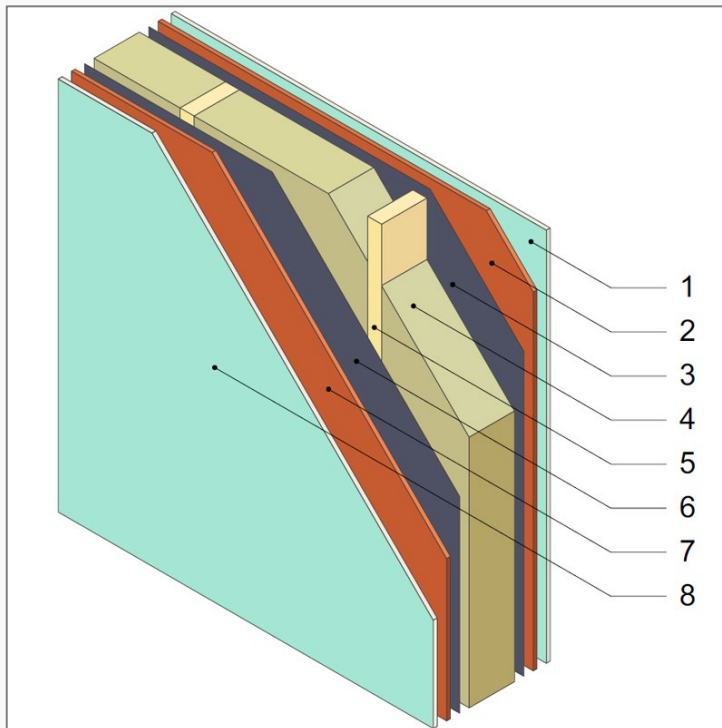
Material	Thickness, mm
1 Timber batten 20x100 mm	20,00
2 Timber batten 45x50 mm	45,00
3 Super-diffusive membrane Strotex Basix 1300	0,10
4 Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 200 mm	195,00
5 Timber 45*195 mm C24 CE	
6 Vapor Control Layer SIGA MajRex	0,10
7 Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 50 mm	
8 Timber 45x50 mm	45,00
9 Gypsum Plasterboard Knauf	12,50
<b>Total Thickness, mm</b>	<b>317,70</b>



# INNER WALL

Inner wall with 150 mm of basalt wool insulation.  
Provides load-bearing.

Perfect humidity and sound insulation. Complies with REI90 when required. Electric pipes and sockets installed. Price is indicative and may vary in dependance of house project.



Thickness, mm	194,20
Transmission heat loss, U, W/m <sup>2</sup> K	0,25
<b>Price / m<sup>2</sup></b>	<b>€ 105,68</b>

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

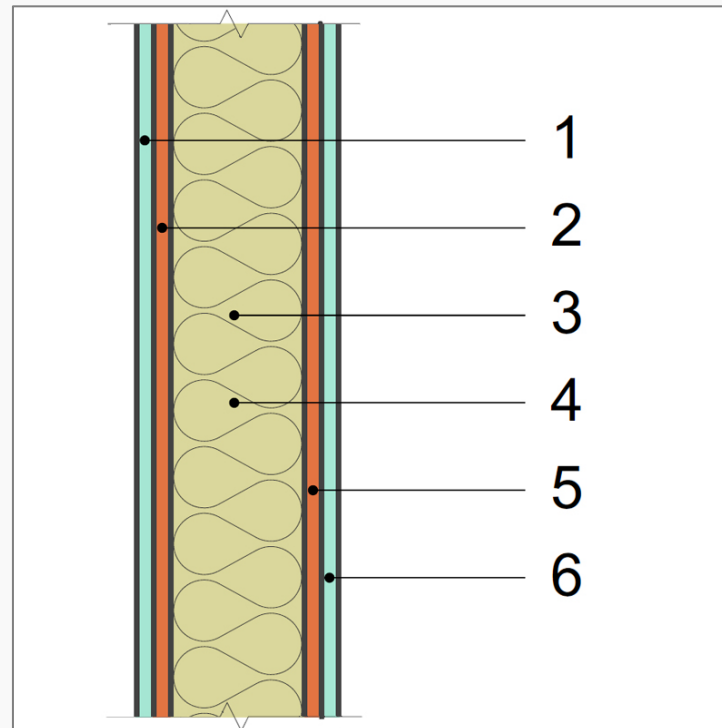
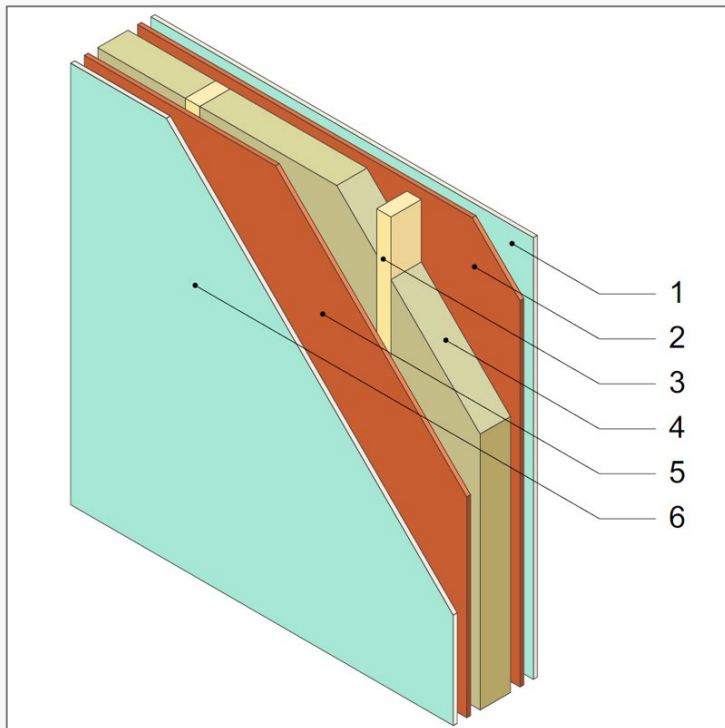
# INNER PARTITION

Inner wall with 100 mm of basalt wool insulation.

Does not provide load-bearing.

Perfect sound insulation. Complies with REI90 when required. Electric pipes and sockets installed.

Price is indicative and may vary in dependence of house project.



Thickness, mm	144,00
Transmission heat loss, U, W/m <sup>2</sup> K	0,36
<b>Price / m<sup>2</sup></b>	<b>€ 90,24</b>

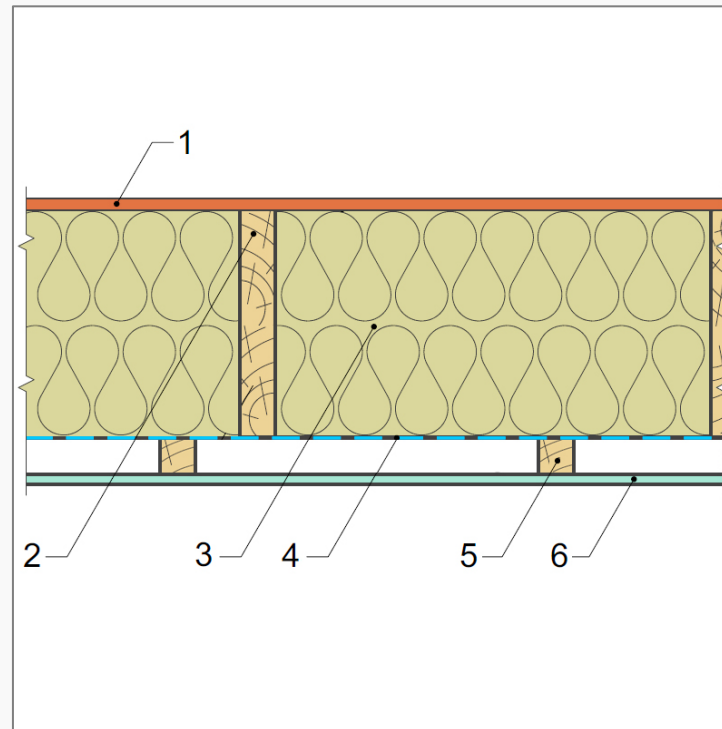
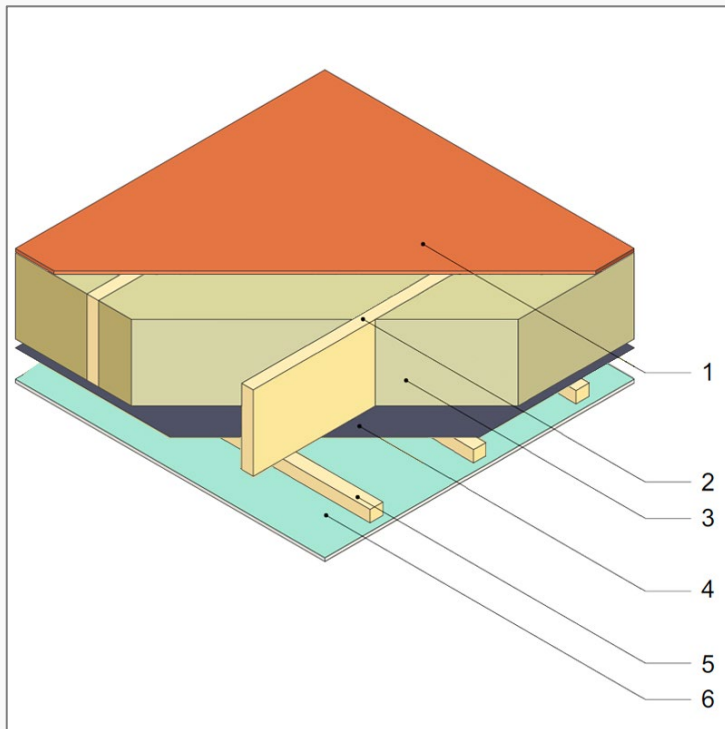
Material	Thickness, mm
1 Gypsum Plasterboard Knauf	12,50
2 OSB 3 Egger 12 mm	12,00
3 Timber 45*95 mm C24 CE	95,00
4 Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 100 mm	
5 OSB 3 Egger 12 mm	12,00
6 Gypsum Plasterboard Knauf	12,50
<b>Total Thickness, mm</b>	<b>144,00</b>



# CEILING

Ceiling with 250 mm of basalt wool insulation.  
Forced with glued timber, provides load-bearing.

Perfect sound and humidity insulation. Complies with REI90 when required.  
Price is indicative and may vary in dependence of house project.



Thickness, mm	309,60
Transmission heat loss, U, W/m <sup>2</sup> K	0,15
<b>Price / m<sup>2</sup></b>	<b>€ 134,73</b>

Material	Thickness, mm
1 OSB 3 Egger 22 mm	22,00
2 Glued timber 45*2*245 mm C24 CE	245,00
3 Insulation basalt wool IZOVAT, 40 kg/m <sup>3</sup> 250 mm	
4 Vapor Control Layer SIGA MajRex	0,10
5 Timber batten 30x45 mm	30,00
6 Gypsum Plasterboard Knauf	12,50
<b>Total Thickness, mm</b>	<b>309,60</b>

# WINDOWS, OUTER DOORS

## Rehau Geneo

Complies with KfW Effizienzhaus 40 Plus



### Rehau Geneo profile

Profile thickness (depends on window openings)	86 mm - 72 mm
Glazing 4i-16ArTep-4-16ArTep-4i, 44mm	$U_g=0,57 \text{ W/m}^2\text{K}$
Fittings MACO, G-U	
Average transmission heat loss, including air heat losses $U_w$ , $\text{W/m}^2\text{K}$	0,76

Price estimation / $\text{m}^2$	€	335,80
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## Rehau Euro 70

Complies with EnEV 2009



### Rehau Euro 70 profile

Profile thickness (depends on window openings)	86 mm - 72 mm
Glazing 4i-14Ar-4-14Ar-4i, 40mm	$U_g=0,83 \text{ W/m}^2\text{K}$
Fittings MACO, G-U	
Average transmission heat loss, including air heat losses $U_w$ , $\text{W/m}^2\text{K}$	1,28

Price estimation / $\text{m}^2$	€	236,80
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USDM

CALCULATIONS OF PREFAB CONSTRUCTION SETS  
HOUSES WITH FLAT AND PITCHED ROOF

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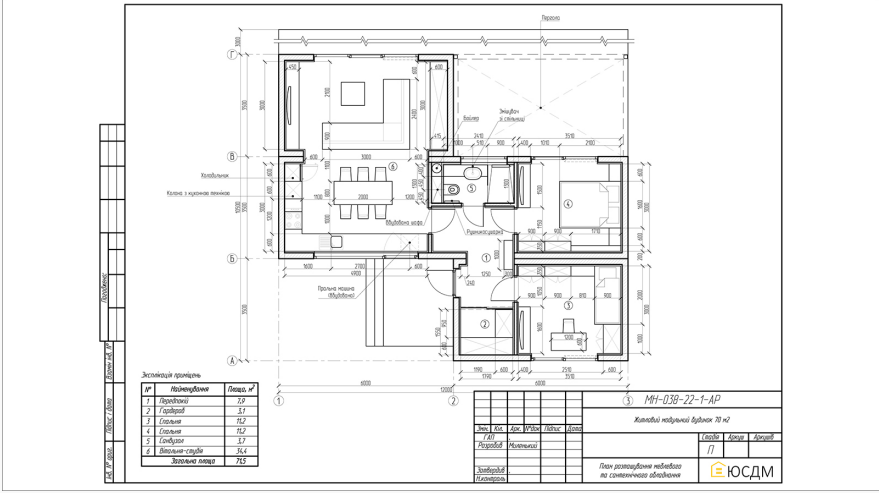
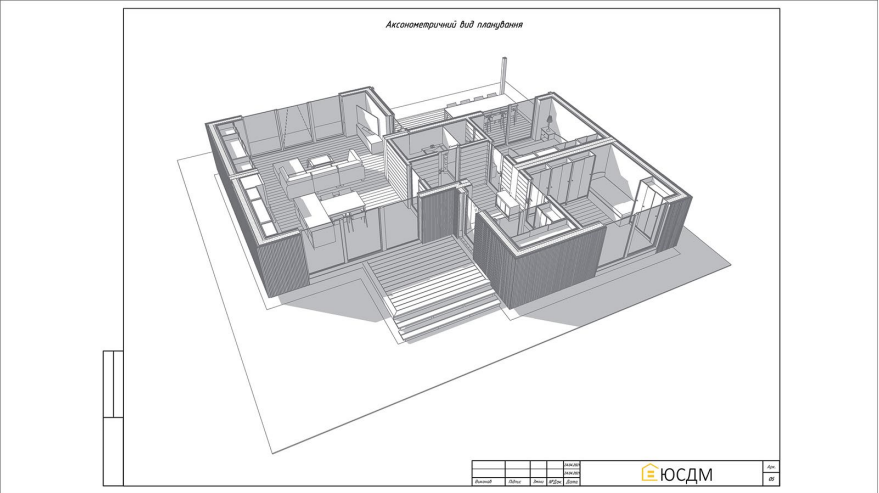
# HOUSE 71,5 M2 FLAT ROOF ONE-STOREY



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# HOUSE 71,5 M2 FLAT ROOF ONE-STOREY



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/m<sup>2</sup>K, does not exceed **0,19**

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, m<sup>2</sup> **71,5**

	Thickness, mm	U, W/m <sup>2</sup> K	Area, m <sup>2</sup>	Price / m <sup>2</sup>	Cost
<b>Outer walls:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard, outer plaster ready	387	0,11	98,28	€ 140	€ 13 778
<b>Inner walls:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard	194	0,25	14,56	€ 133	€ 1 937
<b>Inner partitions:</b>					
Insulation basalt wool IZOVAT, timber, OSB3, gypsum plasterboard	144	0,36	27,16	€ 90	€ 2 451
<b>Flat Roof:</b>					
Insulation basalt wool IZOVAT, OSB 3, timber, gypsum plasterboard	430	0,09	84,00	€ 152	€ 12 753
<b>Windows, outer doors:</b>					
Profile Rehau Geneo glazing 4i-16ArTep-4-16ArTep-4i	-	0,76	27,72	€ 336	€ 9 308
<b>Total cost of construction set</b>				€	<b>40 227</b>
<b>Price / m<sup>2</sup> inner area</b>				€	<b>563</b>

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

House envelope, U, W/m<sup>2</sup>K, does not exceed **0,32**

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, m<sup>2</sup> **71,5**

	Thickness, mm	U, W/m <sup>2</sup> K	Area, m <sup>2</sup>	Price / m <sup>2</sup>	Cost
<b>Outer walls:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard, outer plaster ready	267	0,21	98,28	€ 115	€ 11 346
<b>Inner walls:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard	194	0,25	14,56	€ 133	€ 1 937
<b>Inner partitions:</b>					
Insulation basalt wool IZOVAT, timber, OSB3, gypsum plasterboard	144	0,36	27,16	€ 90	€ 2 451
<b>Flat Roof:</b>					
Insulation basalt wool IZOVAT, OSB 3, timber, gypsum plasterboard	335	0,13	84,00	€ 129	€ 10 841
<b>Windows, outer doors:</b>					
Profile Rehau Euro 70 glazing 4i-14Ar-4-14Ar-4i	-	1,28	27,72	€ 237	€ 6 564
<b>Total cost of construction set</b>				€	<b>33 139</b>
<b>Price / m<sup>2</sup> inner area</b>				€	<b>463</b>

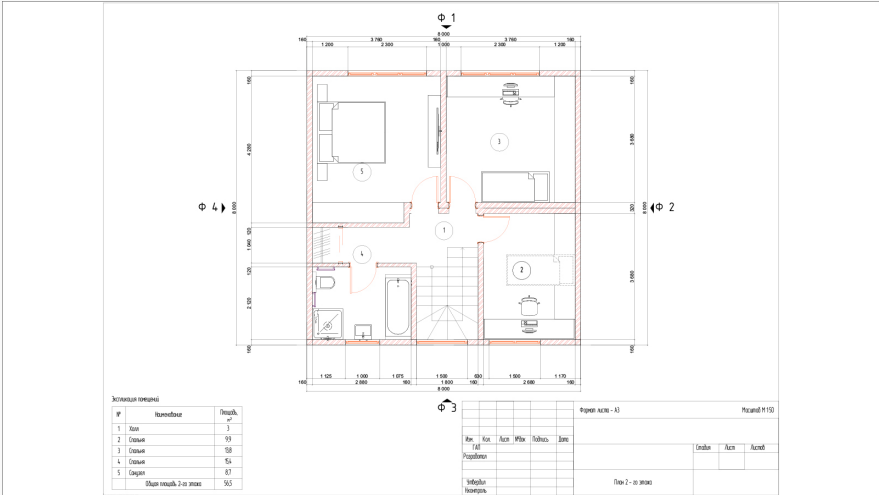
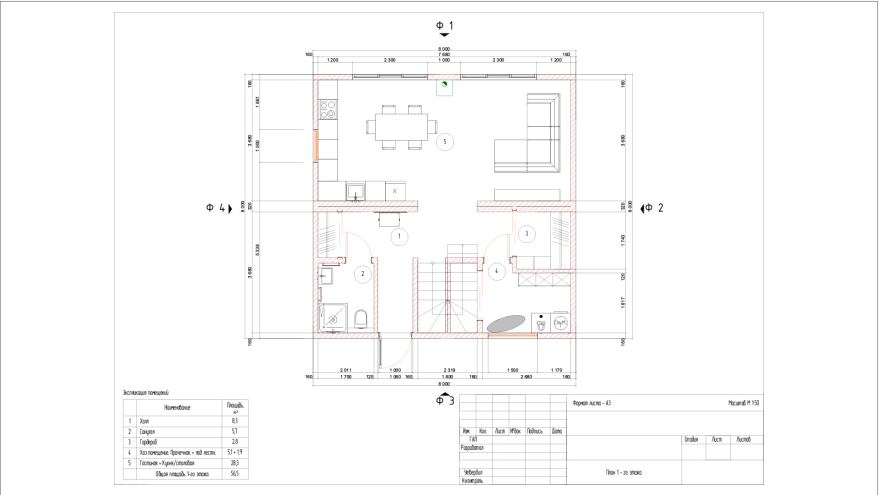
# HOUSE 113 M2 FLAT ROOF TWO-STOREY



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# HOUSE 113 M2 FLAT ROOF TWO-STOREY



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/m<sup>2</sup>K, 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, m<sup>2</sup> **113**

	Thickness, mm	U, W/m <sup>2</sup> K	Area, m <sup>2</sup>	Price / m <sup>2</sup>	Cost
<b>Outer walls:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard, outer plaster ready	387	0,11	174,72	€ 140	€ 24 493
<b>Inner walls:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard	194	0,25	28,56	€ 106	€ 3 018
<b>Inner partitions:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard	144	0,36	59,64	€ 90	€ 5 382
<b>Ceilings:</b>					
Insulation basalt wool IZOVAT, OSB 3, timber, gypsum plasterboard	310	0,15	59,86	€ 135	€ 8 065
<b>Flat Roof:</b>					
Insulation basalt wool IZOVAT, OSB 3, timber, gypsum plasterboard	430	0,09	64,00	€ 152	€ 9 717
<b>Windows, outer doors:</b>					
Profile Rehau Geneo glazing 4i-16ArTep-4-16ArTep-4i	-	0,76	30,08	€ 336	€ 10 101
<b>Total cost of construction set</b>				€	<b>60 776</b>
<b>Price / m<sup>2</sup> inner area</b>				€	<b>538</b>

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

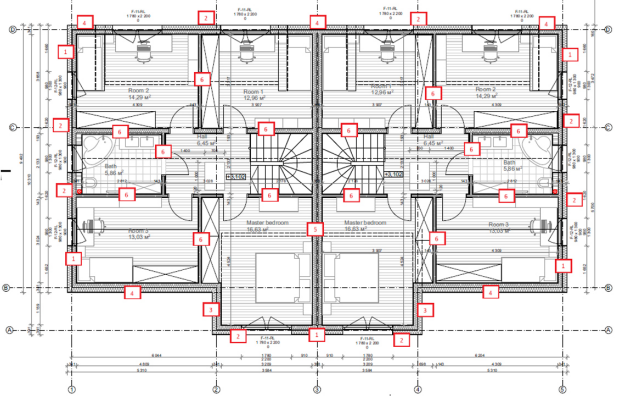
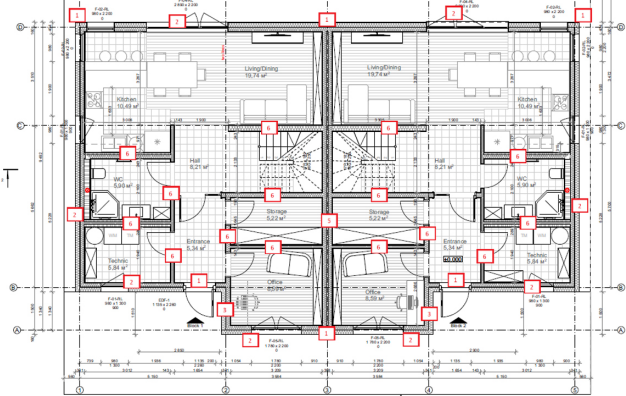
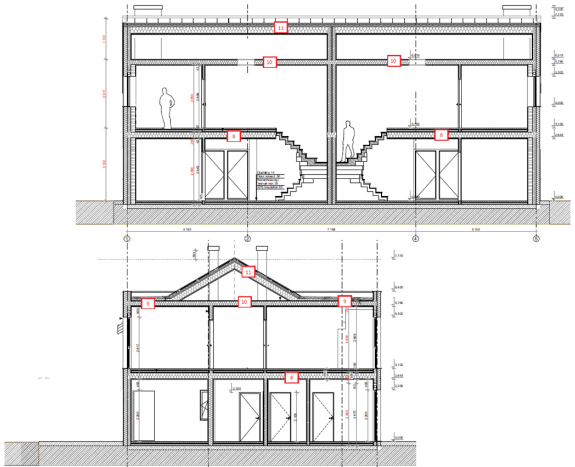
House envelope, U, W/m<sup>2</sup>K, does not exceed **0,31**

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, m<sup>2</sup> **113**

	Thickness, mm	U, W/m <sup>2</sup> K	Area, m <sup>2</sup>	Price / m <sup>2</sup>	Cost
<b>Outer walls:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard, outer plaster ready	267	0,21	174,72	€ 115	€ 20 171
<b>Inner walls:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard	194	0,25	28,56	€ 106	€ 3 018
<b>Inner partitions:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard	144	0,36	59,64	€ 90	€ 5 382
<b>Ceilings:</b>					
Insulation basalt wool IZOVAT, OSB 3, timber, gypsum plasterboard	310	0,15	59,86	€ 135	€ 8 065
<b>Flat Roof:</b>					
Insulation basalt wool IZOVAT, OSB 3, timber, gypsum plasterboard	335	0,13	64,00	€ 129	€ 8 260
<b>Windows, outer doors:</b>					
Profile Rehau Euro 70 glazing 4i-14Ar-4-14Ar-4i	-	1,28	30,08	€ 237	€ 7 123
<b>Total cost of construction set</b>				€	<b>52 019</b>
<b>Price / m<sup>2</sup> inner area</b>				€	<b>460</b>

# HOUSE 227,1 M2 PITCHED ROOF TWO-STOREY



# HOUSE 227,1 M2 PITCHED ROOF TWO-STOREY



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/m<sup>2</sup>K, does not exceed **0,21**

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, m<sup>2</sup> **227,1**

	Thickness, mm	U, W/m <sup>2</sup> K	Area, m <sup>2</sup>	Price / m <sup>2</sup>	Cost
<b>Outer walls:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard, outer plaster ready	387	0,10	177,78	€ 140	€ 24 922
<b>Inner walls:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard	194	0,25	68,65	€ 89	€ 6 115
<b>Inner partitions:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard	144	0,36	194,21	€ 90	€ 17 525
<b>Ceilings:</b>					
Insulation basalt wool IZOVAT, OSB 3, timber, gypsum plasterboard	310	0,15	160,99	€ 117	€ 18 815
<b>Pitched Roof:</b>					
Insulation basalt wool IZOVAT, OSB 3, timber, gypsum plasterboard	413	0,09	153,93	€ 139	€ 21 457
<b>Windows, outer doors:</b>					
Profile Rehau Geneo glazing 4i-16ArTep-4-16ArTep-4i	-	0,71	75,68	€ 336	€ 25 413
<b>Total cost of construction set</b>				€	<b>114 249</b>
<b>Price / m<sup>2</sup> inner area</b>				€	<b>503</b>

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

House envelope, U, W/m<sup>2</sup>K, does not exceed **0,38**

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, m<sup>2</sup> **227,1**

	Thickness, mm	U, W/m <sup>2</sup> K	Area, m <sup>2</sup>	Price / m <sup>2</sup>	Cost
<b>Outer walls:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard, outer plaster ready	267	0,21	177,78	€ 115	€ 20 524
<b>Inner walls:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard	194	0,25	68,65	€ 89	€ 6 115
<b>Inner partitions:</b>					
Insulation basalt wool IZOVAT, timber, OSB 3, gypsum plasterboard	144	0,36	194,21	€ 90	€ 17 525
<b>Ceilings:</b>					
Insulation basalt wool IZOVAT, OSB 3, timber, gypsum plasterboard	310	0,15	160,99	€ 117	€ 18 815
<b>Pitched Roof:</b>					
Insulation basalt wool IZOVAT, OSB 3, timber, gypsum plasterboard	318	0,15	153,93	€ 117	€ 17 954
<b>Windows, outer doors:</b>					
Profile Rehau Euro 70 glazing 4i-14Ar-4-14Ar-4i	-	1,28	75,68	€ 237	€ 17 921
<b>Total cost of construction set</b>				€	<b>98 856</b>
<b>Price / m<sup>2</sup> inner area</b>				€	<b>435</b>





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