



Bryant Homes, Blenheim Grange, Whatton

Approved Document L 2010

With specific reference to AD L1A for New Dwellings, compliance is based on the carbon performance of the whole dwelling, a measure of which is given through the use of the Standard Assessment Procedure (SAP calculation).

Compliance is no longer demonstrated by the elemental U-value method, but U-value calculations are required as they form part of the SAP calculation.

Although reference is made to 'Design Limit' U-values within AD L1A, U-values better than the 'Design Limit' are likely to be required to meet the required Carbon Index Level.



Approved Document L 2010	New build residential	
	Limiting fabric parameter (W/m ² K)	Isover recommended U-value (W/m ² K)
External wall	0.30	< 0.28

Section 6 - Scotland 2010

The standards and guidance given in Section 6 2010 are intended to reduce emissions of carbon dioxide by approximately 30% compared to the 2007 standards. The key changes over the 2007 version are:

- 30% improvement in CO₂ emissions for new buildings
- Expanded role for the use of low carbon equipment
- Improved backstops for fabric U-values and services efficiencies for new buildings

Section 6 includes a range of measures which can be used in setting the target emission rate for a notional dwelling. Included are guideline "notional" U-values, as follows:

Section 6 - Scotland 2010	New build residential	
	Area weighted max U-value (backstop) (W/m ² K)	Notional U-value (W/m ² K)
External wall	0.25	0.19

For further information on compliance with thermal building regulations, please refer to pages 5 and 6.

The Code for Sustainable Homes

Isover products can be specified to achieve reduced CO₂ target emission rates by means of insulation for improved U-values. Specialist products such as the Isover Vario Membrane System and expert design guidance can also help to achieve improved airtightness performance. This stamp highlights potential design solutions.



BBA approval

Isover CWS 36 Slab and Isover CWS 32 are endorsed by the British Board of Agreement (BBA) for use in all exposure zones for buildings up to and including 25m in height.

Isover CWS 36 – BBA Certificate 90/2465

Isover CWS 32 – BBA Certificate 90/2465

To download a copy of the certificate visit www.bbacerts.co.uk



External wall solutions

The external wall solutions detailed in this section of the guide are for masonry, timber frame and steel frame constructions. Constructions are designed to meet or exceed 2010 Thermal Building Regulations down to zero carbon levels. The table below provides a snapshot of the U-values that can be achieved with each solution.

External Wall Solutions	U-values (W/m²K)																		
	0.30	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.22	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.14	0.13	0.12
1 Full-fill masonry cavity wall 75mm cavity			0.28																
2 Full-fill masonry cavity wall 85mm cavity				0.26															
3 Full-fill masonry cavity wall 100mm cavity					0.23														
4 Full-fill masonry cavity wall 125mm cavity						0.20													
5 Full-fill masonry cavity wall 150mm cavity							0.17												
6 Timber frame wall 90mm stud with insulation between	0.30																		
7 Timber frame wall 140mm stud with insulation between				0.23															
8 Timber frame wall 90mm stud with insulation between and service void			0.28																
9 Timber frame wall 140mm stud with insulation between and service void						0.21													
10 Timber frame wall 90mm stud with insulation between and thermal laminate							0.17												
11 Timber frame wall 140mm stud with insulation between and thermal laminate								0.14											
12 Timber frame wall 90mm stud with insulation between and FFS outside					0.23														
13 Timber frame wall 140mm stud with insulation between and FFS outside									0.18										
14 Timber frame wall 184mm stud with insulation between										0.19									
15 Timber frame wall Twin frame insulation between																			0.12
16 Steel frame wall Insulation between and outside								0.22											

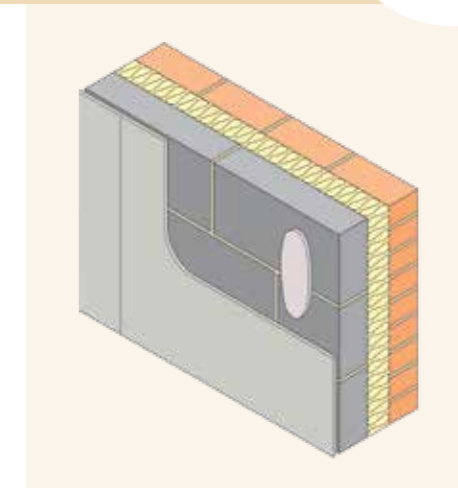


Full-fill masonry cavity wall

75mm cavity

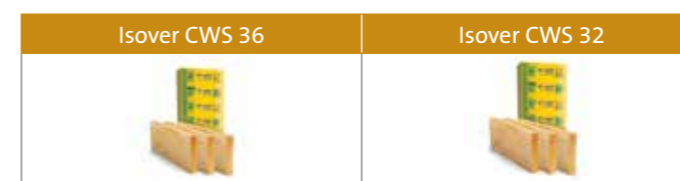


- 103mm brick
- **75mm cavity fully filled with Isover insulation (see table below)**
- 100mm block (see table below)
- Gyproc plasterboard or Gyproc ThermoLine laminate (see table below)



U-value W/m²K	75mm Isover insulation	Block W/mK	Wall thickness (mm)	Board lining
Isover CWS 36 (0.036W/mK) between cavity				
0.32	CWS 36	0.15	301	12.5mm Gyproc WallBoard
0.30	CWS 36	0.11	301	12.5mm Gyproc WallBoard
Isover CWS 32 (0.032W/mK) between cavity				
0.30	CWS 32	0.15	301	12.5mm Gyproc WallBoard
0.28	CWS 32	0.11	301	12.5mm Gyproc WallBoard
Isover CWS 32 (0.032W/mK) between cavity with a Gyproc ThermoLine laminate				
0.26	CWS 32	0.11	310	22mm Gyproc ThermoLine BASIC
0.25	CWS 32	0.11	318	30mm Gyproc ThermoLine BASIC
0.24	CWS 32	0.11	315	27mm Gyproc ThermoLine PLUS
0.23	CWS 32	0.11	323	35mm Gyproc ThermoLine PLUS
0.22	CWS 32	0.11	328	40mm Gyproc ThermoLine PLUS
0.18	CWS 32	0.11	338	50mm Gyproc ThermoLine SUPER

Isover Products



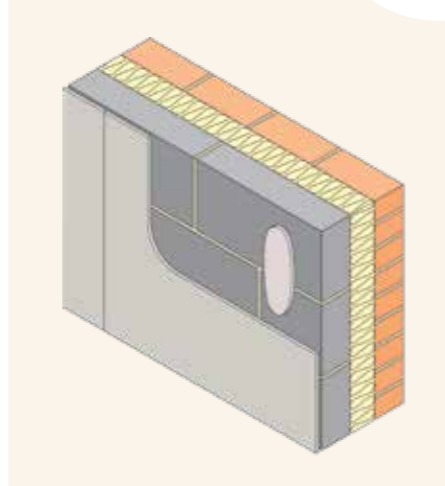
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Full-fill masonry cavity wall

85mm cavity

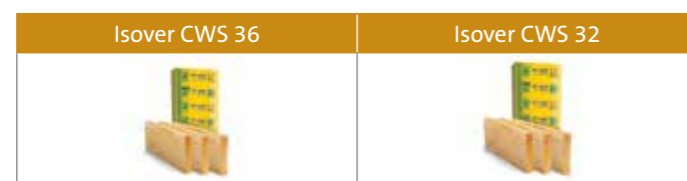


- 103mm brick
- **85mm cavity fully filled with Isover insulation (see table below)**
- 100mm block (see table below)
- Gyproc plasterboard or Gyproc ThermaLine laminate (see table below)



U-value W/m²K	85mm Isover insulation	Block W/mK	Wall thickness (mm)	Board lining
Isover CWS 36 (0.036W/mK) between cavity				
0.34	CWS 36	1.13	311	12.5mm Gyproc WallBoard
0.33	CWS 36	0.51	311	12.5mm Gyproc WallBoard
0.29	CWS 36	0.15	311	12.5mm Gyproc WallBoard
0.28	CWS 36	0.11	311	12.5mm Gyproc WallBoard
Isover CWS 32 (0.032W/mK) between cavity				
0.30	CWS 32	0.51	311	12.5mm Gyproc WallBoard
0.27	CWS 32	0.15	311	12.5mm Gyproc WallBoard
0.26	CWS 32	0.11	311	12.5mm Gyproc WallBoard
Isover CWS 32 (0.032W/mK) between cavity with a Gyproc ThermaLine laminate				
0.24	CWS 32	0.11	320	22mm Gyproc ThermaLine BASIC
0.23	CWS 32	0.11	328	30mm Gyproc ThermaLine BASIC
0.21	CWS 32	0.11	333	27mm Gyproc ThermaLine PLUS
0.17	CWS 32	0.11	348	50mm Gyproc ThermaLine SUPER

Isover Products



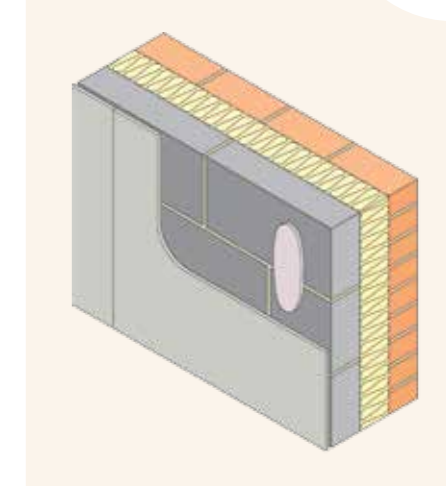
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Full-fill masonry cavity wall

100mm cavity

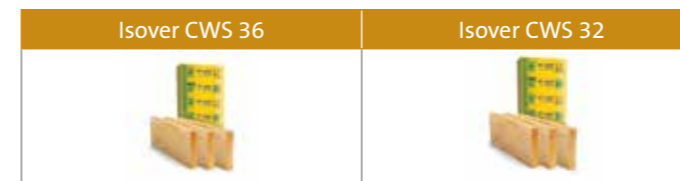


- 103mm brick
- **100mm cavity fully filled with Isover insulation (see table below)**
- 100mm block (see table below)
- Gyproc plasterboard or Gyproc ThermaLine laminate (see table below)



U-value W/m²K	100mm Isover insulation	Block W/mK	Wall thickness (mm)	Board lining
Isover CWS 36 (0.036W/mK) between cavity				
0.30	CWS 36	1.13	326	12.5mm Gyproc WallBoard
0.29	CWS 36	0.51	326	12.5mm Gyproc WallBoard
0.26	CWS 36	0.15	326	12.5mm Gyproc WallBoard
0.25	CWS 36	0.11	326	12.5mm Gyproc WallBoard
Isover CWS 32 (0.032W/mK) between cavity				
0.27	CWS 32	1.13	326	12.5mm Gyproc WallBoard
0.27	CWS 32	0.51	326	12.5mm Gyproc WallBoard
0.24	CWS 32	0.15	326	12.5mm Gyproc WallBoard
0.23	CWS 32	0.11	326	12.5mm Gyproc WallBoard
Isover CWS 32 (0.032W/mK) between cavity with a Gyproc ThermaLine laminate				
0.22	CWS 32	0.11	335	22mm Gyproc ThermaLine BASIC
0.21	CWS 32	0.11	343	30mm Gyproc ThermaLine BASIC
0.20	CWS 32	0.11	340	27mm Gyproc ThermaLine PLUS

Isover Products



4 Full-fill masonry cavity wall

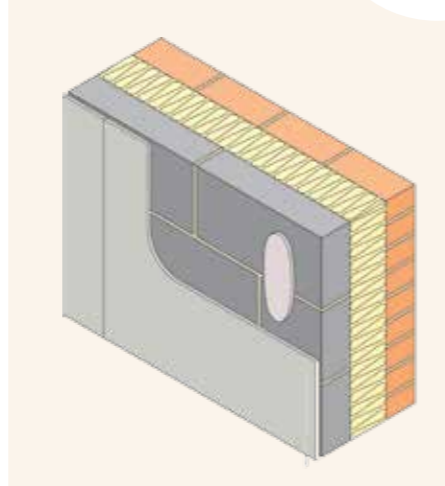
125mm cavity

5 Full-fill masonry cavity wall

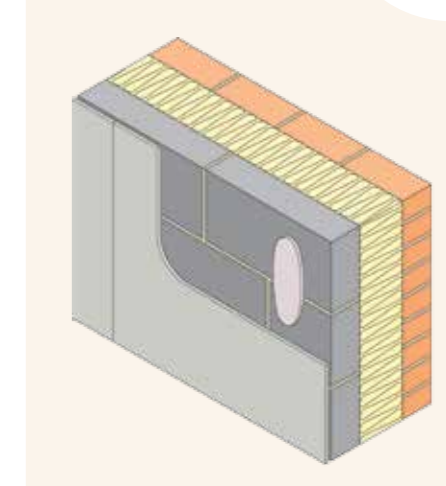
150mm cavity



- 103mm brick
 - **125mm cavity fully filled with Isover insulation (see table below)**
 - 100mm block (see table below)
 - Gyproc plasterboard or Gyproc ThermaLine laminate (see table below)
- (U-value calculations based on thermal efficient wall ties)



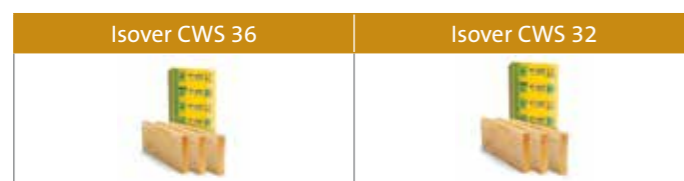
- 103mm brick
 - **150mm cavity fully filled with Isover insulation (see table below)**
 - 100mm block (see table below)
 - Gyproc plasterboard or Gyproc ThermaLine laminate (see table below)
- (U-value calculations based on thermal efficient wall ties)



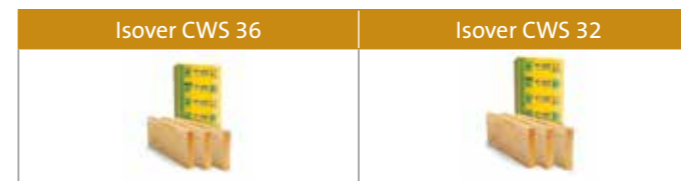
U-value W/m²K	125mm Isover insulation	Block W/mK	Wall thickness (mm)	Board lining
Isover CWS 36 (0.036W/mK) between cavity				
0.25	CWS 36	1.13	351	12.5mm Gyproc WallBoard
0.24	CWS 36	0.51	351	12.5mm Gyproc WallBoard
0.22	CWS 36	0.15	351	12.5mm Gyproc WallBoard
0.21	CWS 36	0.11	351	12.5mm Gyproc WallBoard
Isover CWS 32 (0.032W/mK) between cavity				
0.23	CWS 32	1.13	351	12.5mm Gyproc WallBoard
0.22	CWS 32	0.51	351	12.5mm Gyproc WallBoard
0.20	CWS 32	0.15	351	12.5mm Gyproc WallBoard
0.20	CWS 32	0.11	351	12.5mm Gyproc WallBoard
Isover CWS 32 (0.032W/mK) between cavity with a Gyproc ThermaLine laminate				
0.18	CWS 32	0.11	360	22mm Gyproc ThermaLine BASIC
0.17	CWS 32	0.11	378	40mm Gyproc ThermaLine BASIC
0.16	CWS 32	0.11	378	40mm Gyproc ThermaLine PLUS

U-value W/m²K	150mm Isover insulation	Block W/mK	Wall thickness (mm)	Board lining
Isover CWS 36 (0.036W/mK) between cavity				
0.21	CWS 36	1.13	376	12.5mm Gyproc WallBoard
0.21	CWS 36	0.51	376	12.5mm Gyproc WallBoard
0.19	CWS 36	0.15	376	12.5mm Gyproc WallBoard
0.19	CWS 36	0.11	376	12.5mm Gyproc WallBoard
Isover CWS 32 (0.032W/mK) between cavity				
0.19	CWS 32	1.13	376	12.5mm Gyproc WallBoard
0.19	CWS 32	0.51	376	12.5mm Gyproc WallBoard
0.17	CWS 32	0.15	376	12.5mm Gyproc WallBoard
0.17	CWS 32	0.11	376	12.5mm Gyproc WallBoard
Isover CWS 32 (0.032W/mK) between cavity with a Gyproc ThermaLine laminate				
0.16	CWS 32	0.11	385	22mm Gyproc ThermaLine BASIC
0.15	CWS 32	0.11	390	27mm Gyproc ThermaLine PLUS
0.14	CWS 32	0.11	411	48mm Gyproc ThermaLine PLUS

Isover Products



Isover Products



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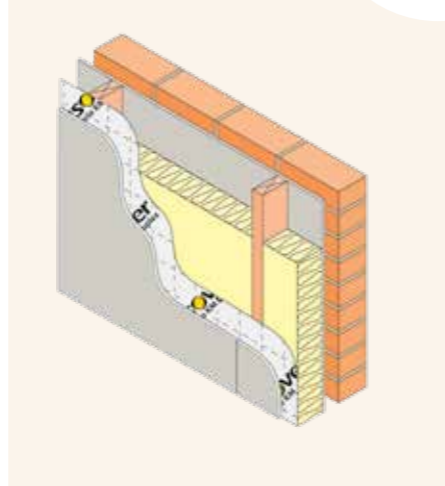
Timber frame wall

90mm stud with insulation between



- 103mm brick
- 50mm clear cavity
- Breather membrane or reflective breather membrane
- 9mm OSB sheathing board
- **90mm timber stud and Isover insulation between (see table below)**
- **Vapour control and airtightness membrane (Isover Vario Membrane System)**
- 12.5mm Gyproc WallBoard

(Isover ULTIMATE™ Cavity Barriers should be installed within the wall cavity as required by Building Regulations)



U-value W/m²K	90mm Isover insulation	Wall thickness (mm)	Board lining
With standard breather membrane			
0.44	Timber Frame Batt 43	265	12.5mm Gyproc WallBoard
0.42	Timber Frame Batt / Roll 40	265	12.5mm Gyproc WallBoard
0.40	Timber Frame Batt / Roll 35	265	12.5mm Gyproc WallBoard
0.38	Timber Frame Batt	265	12.5mm Gyproc WallBoard
With reflective breather membrane			
0.35	Timber Frame Batt 43	265	12.5mm Gyproc WallBoard
0.34	Timber Frame Batt / Roll 40	265	12.5mm Gyproc WallBoard
0.32	Timber Frame Batt / Roll 35	265	12.5mm Gyproc WallBoard
0.30	Timber Frame Batt 32	265	12.5mm Gyproc WallBoard

Isover Products

Isover Timber Frame Batt / Roll	Isover Vario Membrane System	Isover ULTIMATE™ Cavity Barriers

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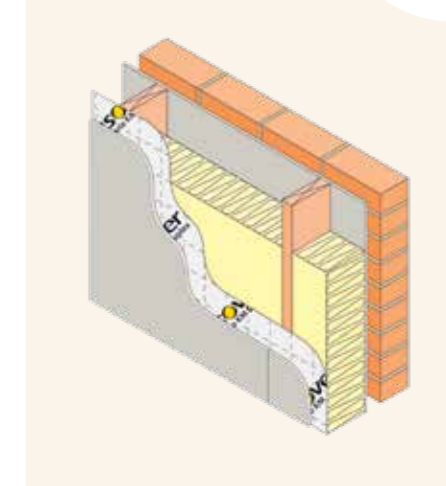
Timber frame wall

140mm stud with insulation between



- 103mm brick
- 50mm clear cavity
- Breather membrane or reflective breather membrane
- 9mm OSB sheathing board
- **140mm timber stud and Isover insulation between (see table below)**
- **Vapour control and airtightness membrane (Isover Vario Membrane System)**
- 12.5mm Gyproc WallBoard

(Isover ULTIMATE™ Cavity Barriers should be installed within the wall cavity as required by Building Regulations)



U-value W/m²K	140mm Isover insulation	Wall thickness (mm)	Board lining
With standard breather membrane			
0.31	Timber Frame Batt 43	315	12.5mm Gyproc WallBoard
0.30	Timber Frame Batt / Roll 40	315	12.5mm Gyproc WallBoard
0.28	Timber Frame Batt / Roll 35	315	12.5mm Gyproc WallBoard
0.26	Timber Frame Batt 32	315	12.5mm Gyproc WallBoard
With reflective breather membrane			
0.26	Timber Frame Batt 43	315	12.5mm Gyproc WallBoard
0.25	Timber Frame Batt / Roll 40	315	12.5mm Gyproc WallBoard
0.24	Timber Frame Batt / Roll 35	315	12.5mm Gyproc WallBoard
0.23	Timber Frame Batt 32	315	12.5mm Gyproc WallBoard

Isover Products

Isover Timber Frame Batt / Roll	Isover Vario Membrane System	Isover ULTIMATE™ Cavity Barriers

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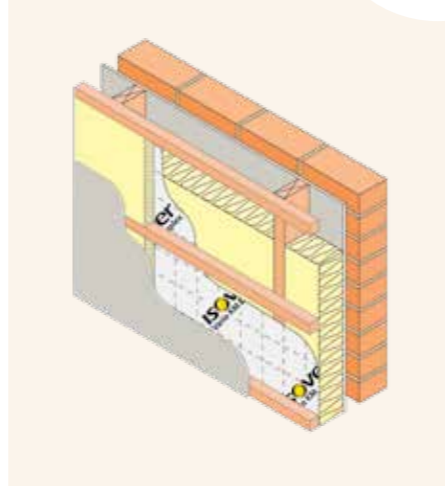
Timber frame wall

90mm stud with insulation between and service void



- 103mm brick
- 50mm clear cavity
- Breather membrane
- 9mm OSB sheathing board
- **90mm timber stud and Isover insulation between (see table below)**
- **Vapour control and airtightness membrane (Isover Vario Membrane System)**
- 50mm service void (with or without Isover Acoustic Partition Roll)
- 12.5mm Gyproc WallBoard

(Isover ULTIMATE™ Cavity Barriers should be installed within the wall cavity as required by Building Regulations)



U-value W/m²K	90mm Isover insulation	Wall thickness (mm)	Board lining
With clear service void			
0.40	Timber Frame Batt 43	315	12.5mm Gyproc WallBoard
0.38	Timber Frame Batt / Roll 40	315	12.5mm Gyproc WallBoard
0.36	Timber Frame Batt / Roll 35	315	12.5mm Gyproc WallBoard
0.34	Timber Frame Batt 32	315	12.5mm Gyproc WallBoard
With Isover Acoustic Partition Roll in service void			
0.31	Timber Frame Batt 43	315	12.5mm Gyproc WallBoard
0.30	Timber Frame Batt / Roll 40	315	12.5mm Gyproc WallBoard
0.29	Timber Frame Batt / Roll 35	315	12.5mm Gyproc WallBoard
0.28	Timber Frame Batt 32	315	12.5mm Gyproc WallBoard

Isover Products



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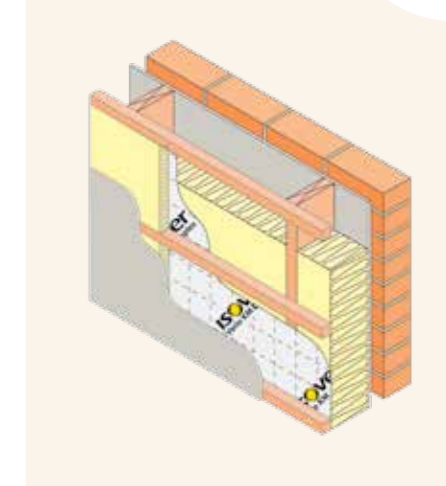
Timber frame wall

140mm stud with insulation between and service void



- 103mm brick
- 50mm Clear Cavity
- Breather membrane
- 9mm OSB sheathing board
- **140mm timber stud and Isover insulation between (see table below)**
- 50mm service void (with or without Isover Acoustic Partition Roll)
- **Vapour control and airtightness membrane (Isover Vario Membrane System)**
- 12.5mm Gyproc WallBoard

(Isover ULTIMATE™ Cavity Barriers should be installed within the wall cavity as required by Building Regulations)



U-value W/m²K	140mm Isover insulation	Wall thickness (mm)	Board lining
With clear service void			
0.29	Timber Frame Batt 43	365	12.5mm Gyproc WallBoard
0.28	Timber Frame Batt / Roll 40	365	12.5mm Gyproc WallBoard
0.26	Timber Frame Batt / Roll 35	365	12.5mm Gyproc WallBoard
0.25	Timber Frame Batt 32	365	12.5mm Gyproc WallBoard
With Isover Acoustic Partition Roll within service void			
0.24	Timber Frame Batt 43	365	12.5mm Gyproc WallBoard
0.24	Timber Frame Batt / Roll 40	365	12.5mm Gyproc WallBoard
0.22	Timber Frame Batt / Roll 35	365	12.5mm Gyproc WallBoard
0.21	Timber Frame Batt 32	365	12.5mm Gyproc WallBoard

Isover Products



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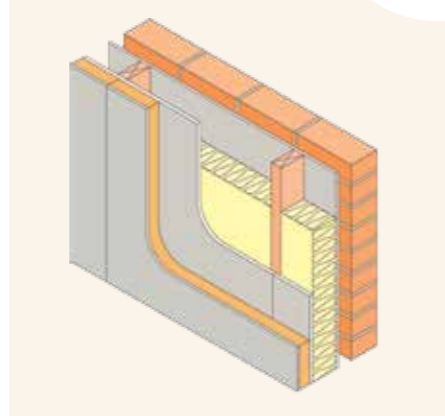
Timber frame wall

90mm stud with insulation between and thermal laminate



- 103mm brick
- 50mm clear cavity
- Breather membrane
- 9mm OSB sheathing board
- **90mm timber stud and Isover insulation between (see table below)**
- **Vapour control and airtightness membrane (Isover Vario Membrane System)**
- Gyproc ThermaLine laminate (see table below)

(Isover ULTIMATE™ Cavity Barriers should be installed within the wall cavity as required by Building Regulations)



U-value W/m²K	90mm Isover insulation	Wall thickness (mm)	Board lining ¹
Gyproc ThermaLine PLUS			
0.30	Timber Frame Batt 43	305	40mm Gyproc ThermaLine PLUS
0.30	Timber Frame Batt / Roll 40	305	
0.28	Timber Frame Batt / Roll 35	305	
0.27	Timber Frame Batt 32	305	
0.29	Timber Frame Batt 43	300	48mm Gyproc ThermaLine PLUS
0.28	Timber Frame Batt / Roll 40	300	
0.27	Timber Frame Batt / Roll 35	300	
0.26	Timber Frame Batt 32	300	
Gyproc ThermaLine SUPER			
0.27	Timber Frame Batt 43	305	40mm Gyproc ThermaLine SUPER
0.26	Timber Frame Batt / Roll 40	305	
0.25	Timber Frame Batt / Roll 35	305	
0.24	Timber Frame Batt 32	305	
0.24	Timber Frame Batt 43	315	50mm Gyproc ThermaLine SUPER
0.23	Timber Frame Batt / Roll 40	315	
0.22	Timber Frame Batt / Roll 35	315	
0.22	Timber Frame Batt 32	315	
0.21	Timber Frame Batt 43	325	60mm Gyproc ThermaLine SUPER
0.20	Timber Frame Batt / Roll 40	325	
0.20	Timber Frame Batt / Roll 35	325	
0.19	Timber Frame Batt 32	325	
0.19	Timber Frame Batt 43	335	70mm Gyproc ThermaLine SUPER
0.19	Timber Frame Batt / Roll 40	335	
0.18	Timber Frame Batt / Roll 35	335	
0.17	Timber Frame Batt 32	335	

¹Where a laminate (except 48mm Gyproc ThermaLine plus) is specified, an additional 12.5mm Gyproc WallBoard is used as an inner layer to give 30 minutes fire resistance (loadbearing)

Isover Products



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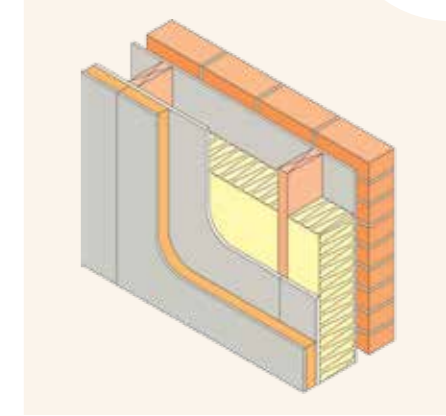
Timber frame wall

140mm stud with insulation between and thermal laminate



- 103mm brick
- 50mm clear cavity
- Breather membrane
- 9mm OSB sheathing board
- **140mm timber stud and Isover insulation between (see table below)**
- **Vapour control and airtightness membrane (Isover Vario Membrane System)**
- Gyproc ThermaLine laminate (see table below)

(Isover ULTIMATE™ Cavity Barriers should be installed within the wall cavity as required by Building Regulations)



U-value W/m²K	140mm Isover insulation	Wall thickness (mm)	Board lining ¹
Gyproc ThermaLine PLUS			
0.27	Timber Frame Batt 43	342	27mm Gyproc ThermaLine PLUS
0.26	Timber Frame Batt / Roll 40	342	
0.24	Timber Frame Batt / Roll 35	342	
0.23	Timber Frame Batt 32	342	
0.25	Timber Frame Batt 43	350	35mm Gyproc ThermaLine PLUS
0.24	Timber Frame Batt / Roll 40	350	
0.22	Timber Frame Batt / Roll 35	350	
0.22	Timber Frame Batt 32	350	
0.22	Timber Frame Batt 43	350	48mm Gyproc ThermaLine PLUS
0.22	Timber Frame Batt / Roll 40	350	
0.21	Timber Frame Batt / Roll 35	350	
0.20	Timber Frame Batt 32	350	
Gyproc ThermaLine SUPER			
0.19	Timber Frame Batt 43	365	50mm Gyproc ThermaLine SUPER
0.19	Timber Frame Batt / Roll 40	365	
0.18	Timber Frame Batt / Roll 35	365	
0.17	Timber Frame Batt 32	365	
0.17	Timber Frame Batt 43	375	60mm Gyproc ThermaLine SUPER
0.17	Timber Frame Batt / Roll 40	375	
0.16	Timber Frame Batt / Roll 35	375	
0.16	Timber Frame Batt 32	375	
0.16	Timber Frame Batt 43	385	70mm Gyproc ThermaLine SUPER
0.16	Timber Frame Batt / Roll 40	385	
0.15	Timber Frame Batt / Roll 35	385	
0.14	Timber Frame Batt 32	385	

¹Where a laminate (except 48mm Gyproc ThermaLine plus) is specified, an additional 12.5mm Gyproc WallBoard is used as an inner layer to give 30 minutes fire resistance.

Isover Products



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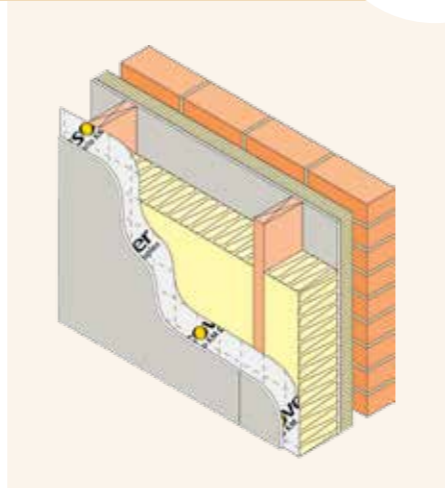
Timber frame wall

90mm stud with insulation between and Frame Façade Slab outside



- 103mm brick
- **Cavity partially filled with 50mm Isover Frame Façade Slab (integral breather membrane)**
- 9mm OSB sheathing board
- **90mm timber stud and Isover insulation between (see table below)**
- **Vapour control and airtightness membrane (Isover Vario Membrane System)**
- 12.5mm Gyproc WallBoard

(Isover ULTIMATE™ Cavity Barriers should be installed within the wall cavity as required by Building Regulations)



U-value W/m²K	90mm Isover insulation	Wall thickness (mm)	Board lining
0.25	Frame Batt 43	315	12.5mm Gyproc WallBoard
0.25	Frame Batt / Roll 40	315	12.5mm Gyproc WallBoard
0.24	Frame Batt / Roll 35	315	12.5mm Gyproc WallBoard
0.23	Frame Batt 32	315	12.5mm Gyproc WallBoard

Isover Products



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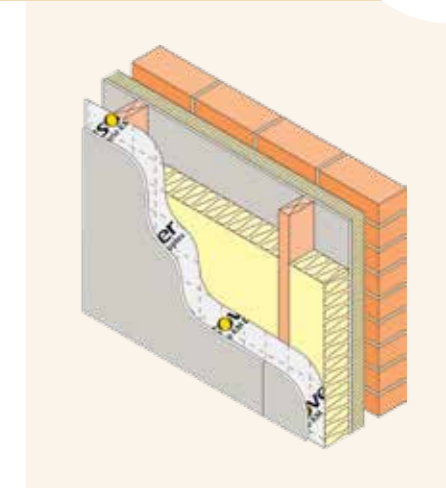
Timber frame wall

140mm stud with insulation between and Frame Façade Slab outside



- 103mm brick
- **Cavity partially filled with 50mm Isover Frame Façade Slab (integral breather membrane)**
- 9mm OSB sheathing board
- **140mm timber stud and Isover insulation between (see table below)**
- **Vapour control and airtightness membrane (Isover Vario Membrane System)**
- 12.5mm Gyproc WallBoard

(Isover ULTIMATE™ Cavity Barriers should be installed within the wall cavity as required by Building Regulations)



U-value W/m²K	140mm Isover insulation	Wall thickness (mm)	Board lining
0.21	Frame Batt 43	365	12.5mm Gyproc WallBoard
0.20	Frame Batt / Roll 40	365	12.5mm Gyproc WallBoard
0.19	Frame Batt / Roll 35	365	12.5mm Gyproc WallBoard
0.18	Frame Batt 32	365	12.5mm Gyproc WallBoard

Isover Products



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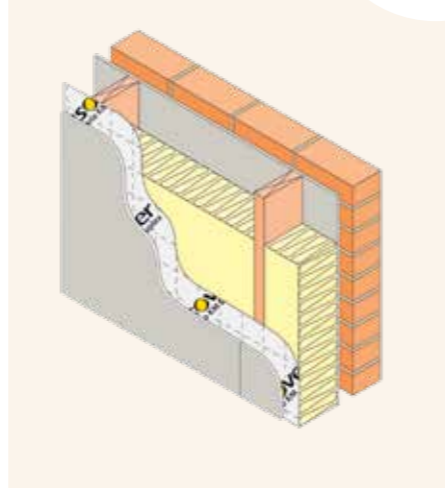
Timber frame wall

184mm stud with insulation between



- 103mm brick
- 50mm clear cavity
- Breather membrane or reflective breather membrane
- 9mm OSB sheathing board
- **184mm timber stud and Isover insulation between (see table below)**
- **Vapour control and airtightness membrane (Isover Vario Membrane System)**
- 12.5mm Gyproc WallBoard

(Isover ULTIMATE™ Cavity Barriers should be installed within the wall cavity as required by Building Regulations)



U-value W/m²K	180mm Isover insulation (2 x 90mm)	Wall thickness (mm)	Board lining
With standard breather membrane			
0.26	Timber Frame Batt 43	360	12.5mm Gyproc WallBoard
0.25	Timber Frame Batt / Roll 40	360	12.5mm Gyproc WallBoard
0.23	Timber Frame Batt / Roll 35	360	12.5mm Gyproc WallBoard
0.22	Timber Frame Batt	360	12.5mm Gyproc WallBoard
With reflective breather membrane			
0.22	Timber Frame Batt 43	360	12.5mm Gyproc WallBoard
0.21	Timber Frame Batt / Roll 40	360	12.5mm Gyproc WallBoard
0.20	Timber Frame Batt / Roll 35	360	12.5mm Gyproc WallBoard
0.19	Timber Frame Batt 32	360	12.5mm Gyproc WallBoard

Isover Products



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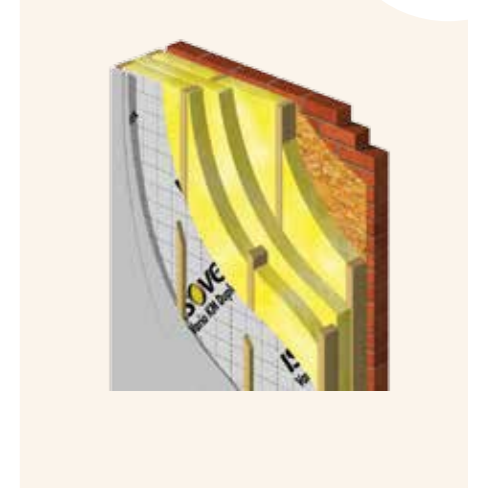
Timber frame wall

Twin frame



- 103mm brick
- 50mm clear cavity
- Breather membrane or reflective breather membrane
- 9mm OSB sheathing board
- **90mm timber stud and Isover insulation between (see table below)**
- **90mm cavity between frames and Isover insulation (see table below)**
- **90mm timber stud and Isover insulation between (see table below)**
- **Vapour control and airtightness membrane (Isover Vario Membrane System)**
- 12.5mm Gyproc WallBoard

(Isover ULTIMATE™ Cavity Barriers should be installed within the wall cavity as required by Building Regulations)



U-value W/m²K	270mm Isover insulation (3 x 90mm)	Wall thickness (mm)	Board lining
With standard breather membrane			
0.16	Timber Frame Batt 43	445	12.5mm Gyproc WallBoard
0.15	Timber Frame Batt / Roll 40	445	12.5mm Gyproc WallBoard
0.14	Timber Frame Batt / Roll 35	445	12.5mm Gyproc WallBoard
0.13	Timber Frame Batt 32	445	12.5mm Gyproc WallBoard
With reflective breather membrane			
0.15	Timber Frame Batt 43	445	12.5mm Gyproc WallBoard
0.14	Timber Frame Batt / Roll 40	445	12.5mm Gyproc WallBoard
0.13	Timber Frame Batt / Roll 35	445	12.5mm Gyproc WallBoard
0.12	Timber Frame Batt 32	445	12.5mm Gyproc WallBoard

Isover Products





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Steel frame wall

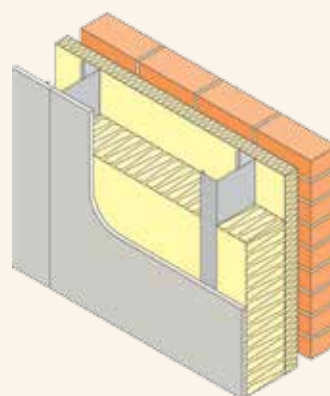
Insulation between and outside



Green Guide A+

- 103mm brick
- 50mm clear cavity
- **50mm Isover Steel Frame Batt**
- **Steel studs and Isover insulation (see table below)**
- **Vapour control layer Vario KM Duplex (Vario Membrane System)**
- 12.5mm Gyproc WallBoard

(Isover ULTIMATE™ Cavity Barriers should be installed within the wall cavity as required by Building Regulations)



¹ Based on Metsec M12 Studs at 600mm centres.
² Based on 2 x 75mm with joints staggered.

U-value W/m ² K	Stud size	Isover insulation	Wall thickness (mm)	Board lining ¹
0.29	100mm	50mm Steel Frame Infill Batt	316	12.5mm Gyproc WallBoard
0.26	100mm	75mm Steel Frame Infill Batt	316	12.5mm Gyproc WallBoard
0.25	100mm	100mm Steel Frame Infill Batt	316	12.5mm Gyproc WallBoard
0.22	150mm	150mm Steel Frame Infill Batt ²	366	12.5mm Gyproc WallBoard

Isover Products

Isover Steel Frame Batt	Isover Steel Frame Infill Batt	Isover Vario Membrane System	Isover ULTIMATE™ Cavity Barriers