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PSI-VALUE PATTERN BOOK

YOUR GUIDE TO PART L COMPLIANCE









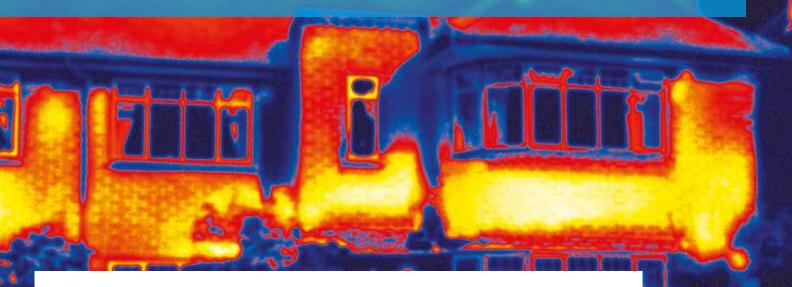


challenge.

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INTRODUCTION



Psi-value calculations - what's changing?

To help housebuilders and SAP assessors calculate their Psi-values more accurately, we have developed a 'Psi-value Pattern Book', including product-specific details for a range of different junction types.

Psi-values measure the rate of heat lost through junctions where two elements meet, for example where a floor meets an external wall, or a window interrupts a wall. Psi-values are measured in watts per metre Kelvin (W/mK).

Both U-values and Psi-values must be taken into account, when assessing the energy efficiency of a building. The lower the U-values and Psi-values of a build, the better the building is detailed and will retain heat.

How the ADL updates affect calculations

In the past, SAP assessors had the option to use 'Accredited Construction Details' to calculate Psivalues. These are standardised details, based on different types of thermal element and junction, which the assessor can select from a pre-set list (Annex K).

Under the updated regulations, assessors are required to produce Psi-value calculations using SAP 10.2 software, which no longer includes the option to use Accredited Construction Details. Instead, housebuilders and SAP assessors need to work with suppliers who can provide up-to-date, technical information, specific to their products.

How to use the Pattern Book

The Psi-value Pattern Book includes a range of external wall and party wall details. Each junction includes an illustration to demonstrate the recommended Knauf Insulation product, other components and detailing considerations. A check list is also provided to help ensure the requirements have been followed.

For the external wall junctions, Psi-values are provided across a range of cavity widths and block thermal conductivities with either DriTherm[®] Cavity Slab 32, DriTherm[®] Cavity Slab 34 or Supafil[®] 34 installed in the external cavity wall.

For the party wall junctions, Psi-values are provided with either Masonry Party Wall Slab or Supafil® Party Wall installed in the party wall cavity.

YOU CAN ALSO CALCULATE YOUR PSI-VALUE WITH OUR NEW ONLINE CALCULATOR https://www.knaufinsulation.co.uk/psi-value-calculator



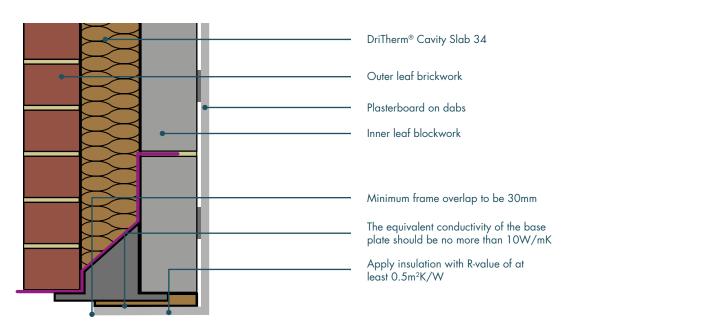
<mark>challenge.</mark> create. care.



Junction reference:

E1 - Steel lintel with perforated steel base plate

Ref:	KI_PSI_E1_DT34_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		



The materials are as in the wall shown in Table 1 with the additional materials shown in the Figure. To deal with the diagonal element of the lintel, the Trisco model was developed with a second Physibel package, Bisco, this means that the Trisco model has non standard scaling: 1 grid unit = 0.395mm.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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		For DriTherm® Cavity Slab 34					
		100	mm cavity	125	nm cavity	150	nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.274	0.858	0.291	0.859	0.292	0.861
Standard aircrete	0.15	0.292	0.861	0.308	0.862	0.305	0.863
High strength aircrete	0.19	0.308	0.863	0.322	0.864	0.316	0.864
Ultra lightweight aggregate	0.31	0.340	0.867	0.351	0.867	0.339	0.867
Lightweight aggregate	0.50	0.371	0.871	0.379	0.870	0.361	0.869

Table Ref: E1a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Minimum frame overlap of 30mm

Insulation with an R-value of at least 0.5 m^2K/W applied to the soffit

Equivalent conductivity of the baseplate no more than 10 $\ensuremath{\text{W/mK}}$

Site manager/supervisor:

Site name:	
Plot number:	
Date:	



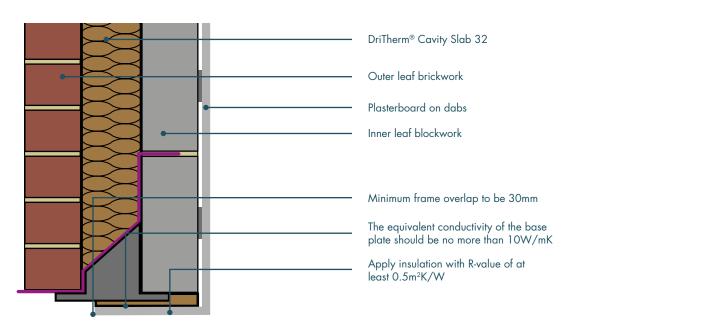




Junction reference:

E1 - Steel lintel with perforated steel base plate

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				For DriThern	n® Cavity Sla	ıb 32	
		100	mm cavity	125	mm cavity	150	nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	e f-value ψ-value	f-value	
High performance aircrete	0.11	0.276	0.858	0.293	0.859	0.294	0.861
Standard aircrete	0.15	0.295	0.861	0.311	0.862	0.307	0.863
High strength aircrete	0.19	0.311	0.863	0.324	0.864	0.318	0.864
Ultra lightweight aggregate	0.31	0.343	0.868	0.354	0.867	0.341	0.867
Lightweight aggregate	0.50	0.374	0.871	0.382	0.870	0.363	0.869

Table Ref: E1b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Minimum frame overlap of 30mm

Insulation with an R-value of at least 0.5 $\ensuremath{\,m^2 K/W}$ applied to the soffit

Equivalent conductivity of the baseplate no more than 10 W/mK

Site manager/supervisor:

Site name:	
Plot number:	
Date:	

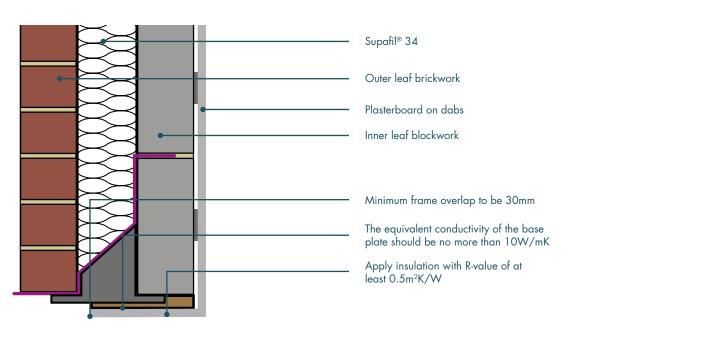




Junction reference:

E1 - Steel lintel with perforated steel base plate

Ref:	KI_PSI_E1_SF34_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		



The materials are as in the wall shown in Table 1 with the additional materials shown in the Figure. To deal with the diagonal element of the lintel, the Trisco model was developed with a second Physibel package, Bisco, this means that the Trisco model has non standard scaling: 1 grid unit = 0.395mm.

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				For S	upafil® 34		
		100	mm cavity	125	mm cavity	150	nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.274	0.858	0.291	0.859	0.292	0.861
Standard aircrete	0.15	0.292	0.861	0.308	0.862	0.305	0.863
High strength aircrete	0.19	0.308	0.863	0.322	0.864	0.316	0.864
Ultra lightweight aggregate	0.31	0.340	0.867	0.351	0.867	0.339	0.867
Lightweight aggregate	0.50	0.371	0.871	0.379	0.870	0.361	0.869

Table Ref: E1c

On-site checklist

Supafil[®] 34 installed in cavity

Minimum frame overlap of 30mm

Insulation with an R-value of at least 0.5 m^2K/W applied to the soffit

Equivalent conductivity of the baseplate no more than 10 W/mK

Site manager/supervisor:

Site name:	
Plot number:	
Date:	







Junction reference: E2A - Independent concrete lintels

Ref:	KI_PSI_E2A_DT34_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		

	Plasterboard on dabs Inner leaf blockwork
	Outer leaf brickwork DriTherm® Cavity Slab 34
	Close the cavity with insulation less than or equal to 0.026W/mK
	Frame to overlap cavity by minimum 30mm

Construction Details

Material	Width (mm)	Thermal conductivity (W/mK)
Brick	102.5	0.77
Insulated cavity	Widths and thermal conductivi	ties as shown in tables above
Blockwork	100	Values as shown in tables above
Cavity	15	0.088
Plasterboard	12.5	0.19

The independent lintels are of concrete with conductivity 1.33 W/mK. They are 215mm high. The cavity closer is 45mm high, consisting of insulation with conductivity 0.022 W/mK, within 2mm of PVC with conductivity 0.20 W/mK. The adiabatic frame is 70mm wide and the distance from the face of the brick to the frame is 60mm.

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		For DriTherm® Cavity Slab 34							
		100	mm cavity	125	mm cavity	150r	nm cavity		
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
High performance aircrete	0.11	0.038	0.912	0.035	0.910	0.035	0.909		
Standard aircrete	0.15	0.035	0.912	0.033	0.910	0.033	0.909		
High strength aircrete	0.19	0.032	0.912	0.031	0.910	0.032	0.909		
Ultra lightweight aggregate	0.31	0.029	0.912	0.029	0.910	0.030	0.909		
Lightweight aggregate	0.50	0.027	0.912	0.028	0.910	0.029	0.909		

Table Ref: E2Aa

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Minimum frame overlap of 30mm

Insulation with an R-value of at least 0.5 $\ensuremath{\,m^2 K/W}$ applied to the soffit

Equivalent conductivity of the baseplate no more than 10 W/mK

Site manager/supervisor:

Site name:	
Plot number:	
Date:	







Junction reference: E2A - Independent concrete lintels

Ref:	KI_PSI_E2A_DT32_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		

Plasterboard on dabs Inner leaf blockwork
Outer leaf brickwork DriTherm® Cavity Slab 32
Close the cavity with insulation less than or equal to 0.026W/mK Frame to overlap cavity by minimum 30mm

Construction Details

Width (mm)	Thermal conductivity (W/mK)
102.5	0.77
Widths and thermal conductivitie	es as shown in tables above
100	Values as shown in tables above
15	0.088
12.5	0.19
	102.5 Widths and thermal conductivitie

The independent lintels are of concrete with conductivity 1.33 W/mK. They are 215mm high. The cavity closer is 45mm high, consisting of insulation with conductivity 0.022 W/mK, within 2mm of PVC with conductivity 0.20 W/mK. The adiabatic frame is 70mm wide and the distance from the face of the brick to the frame is 60mm.

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		For DriTherm [®] Cavity Slab 32							
		100	mm cavity	125	mm cavity	1 5 Or	nm cavity		
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
High performance aircrete	0.11	0.037	0.912	0.035	0.910	0.034	0.909		
Standard aircrete	0.15	0.034	0.912	0.032	0.910	0.032	0.909		
High strength aircrete	0.19	0.032	0.912	0.031	0.910	0.031	0.909		
Ultra lightweight aggregate	0.31	0.028	0.912	0.029	0.910	0.030	0.909		
Lightweight aggregate	0.50	0.027	0.912	0.027	0.910	0.028	0.909		

Table Ref: E2Ab

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Minimum frame overlap of 30mm

Insulation with an R-value of at least 0.5 $\ensuremath{\,m^2 K/W}$ applied to the soffit

Equivalent conductivity of the baseplate no more than 10 W/mK

Site manager/supervisor:

Site name:	
Plot number:	
Date:	







Junction reference: E2A - Independent concrete lintels

Ref:	KI_PSI_E2A_SF34_0001	Dated:	May 2021
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Plasterboard on dabs Inner leaf blockwork
Outer leaf brickwork Supafil® 34
Close the cavity with insulation less than or equal to 0.026W/mK Frame to overlap cavity by minimum 30mm

Construction Details

Material	Width (mm)	Thermal conductivity (W/mK)
Brick	102.5	0.77
Insulated cavity	Widths and thermal conductiviti	es as shown in tables above
Blockwork	100	Values as shown in tables above
Cavity	15	0.088
Plasterboard	12.5	0.19

The independent lintels are of concrete with conductivity 1.33 W/mK. They are 215mm high. The cavity closer is 45mm high, consisting of insulation with conductivity 0.022 W/mK, within 2mm of PVC with conductivity 0.20 W/mK. The adiabatic frame is 70mm wide and the distance from the face of the brick to the frame is 60mm.

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		For Supafil® 34							
		100	nm cavity	125	nm cavity	150r	nm cavity		
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
High performance aircrete	0.11	0.038	0.912	0.035	0.910	0.035	0.909		
Standard aircrete	0.15	0.035	0.912	0.033	0.910	0.033	0.909		
High strength aircrete	0.19	0.032	0.912	0.031	0.910	0.032	0.909		
Ultra lightweight aggregate	0.31	0.029	0.912	0.029	0.910	0.030	0.909		
Lightweight aggregate	0.50	0.027	0.912	0.028	0.910	0.029	0.909		

Table Ref: E2c

On-site checklist

Supafil[®] 34 installed in cavity

Minimum frame overlap of 30mm

Insulation with an R-value of at least 0.5 m^2K/W applied to the soffit

Equivalent conductivity of the baseplate no more than 10 W/mK

Site manager/supervisor:

Site name:	
Plot number:	
Date:	







 Junction reference:

 E3 - Window sill

 Ref:
 KL_PSI_E3_DT34_0001
 Dated:
 May 2021

 Issued by:
 Knauf Insulation Ltd
 Minimum frame overlap to be 30mm

 Close the cavity with insulation less than or equal to 0.026W/mK
 Close the cavity with insulation less than or equal to 0.026W/mK

 Inner leaf blockwork
 Outer leaf brickwork
 Outer leaf brickwork

 DriTherm® Cavity Slab 34

The internal sill is 20mm softwood with conductivity 0.12 W/mK

The cavity closer is 45mm high, consisting of insulation with conductivity 0.022 W/mK, within 2mm of PVC with conductivity 0.20 W/mK. The adiabatic frame is 70mm wide and the distance from the face of the brick to the frame is 60mm.

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		For DriTherm [®] Cavity Slab 34						
		100	nm cavity	125	mm cavity	1 5 Or	nm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.021	0.899	0.023	0.897	0.025	0.895	
Standard aircrete	0.15	0.020	0.900	0.022	0.897	0.024	0.896	
High strength aircrete	0.19	0.020	0.900	0.021	0.898	0.024	0.896	
Ultra lightweight aggregate	0.31	0.019	0.901	0.021	0.898	0.023	0.896	
Lightweight aggregate	0.50	0.019	0.901	0.021	0.899	0.023	0.896	

Table Ref: E3a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Frame overlap at least 30mm

Cavity closed with insulation with $\leq 0.026 \text{ W/mK}$

Site manager/supervisor:
Site name:
Plot number:
Date:





 Junction reference:

 E3 - Window sill

 Ref:
 KL_PSLE3_DT32_0001
 Dated:
 May 2021

 Issued by:
 Knauf Insulation Ltd
 Minimum frame overlap to be 30mm

 Close the cavity with insulation less than or equal to 0.026W/mK
 Plasterboard on dabs

 Inner leaf blockwork
 Outer leaf brickwork

 DriTherm® Cavity Slab 34

The internal sill is 20mm softwood with conductivity 0.12 W/mK

The cavity closer is 45mm high, consisting of insulation with conductivity 0.022 W/mK, within 2mm of PVC with conductivity 0.20 W/mK. The adiabatic frame is 70mm wide and the distance from the face of the brick to the frame is 60mm.

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	For DriTherm® Cavity Slab 32							
	100	nm cavity	125r	nm cavity	150r	nm cavity		
Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
0.11	0.021	0.899	0.023	0.897	0.025	0.896		
0.15	0.020	0.900	0.022	0.898	0.024	0.896		
0.19	0.020	0.900	0.022	0.898	0.024	0.896		
0.31	0.020	0.901	0.022	0.898	0.023	0.896		
0.50	0.019	0.902	0.021	0.899	0.023	0.897		
	(W/mK) 0.11 0.15 0.19 0.31	Thermal Conductivity (W/mK) ψ-value 0.11 0.021 0.15 0.020 0.19 0.020 0.31 0.020	IOOmm cavity Thermal Conductivity (W/mK) ψ-value f-value 0.11 0.021 0.899 0.15 0.020 0.900 0.19 0.020 0.900 0.31 0.020 0.901	IOOmm cavity 125r Thermal Conductivity (W/mK) \$\psi value\$ \$\psi value\$ \$\psi value\$ 0.11 0.021 0.899 0.023 0.15 0.020 0.900 0.022 0.19 0.020 0.901 0.022 0.31 0.020 0.901 0.022	I00mm cavity I25mm cavity Thermal Conductivity (W/mK) ψ-value f-value ψ-value 0.11 0.021 0.899 0.023 0.897 0.15 0.020 0.900 0.022 0.898 0.19 0.020 0.901 0.022 0.898 0.31 0.020 0.901 0.022 0.898	IOOmm cavity I25mm cavity I50m Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value ψ-value 0.11 0.021 0.899 0.023 0.897 0.025 0.15 0.020 0.900 0.022 0.898 0.024 0.19 0.020 0.901 0.022 0.898 0.023		

Table Ref: E3b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Frame overlap at least 30mm

Cavity closed with insulation with $\leq 0.026 \text{ W/mK}$

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	



 Junction reference:

 E3 - Window sill

 Ref:
 KL_PSI_E3_SF34_0001
 Dated:
 May 2021

 Issued by:
 Knouf Insulation Ltd
 Minimum frame overlap to be 30mm

 Close the cavity with insulation less than or equal to 0.026W/mK
 Plasterboard on dabs

 Inner leaf blockwork
 Outer leaf blockwork

 Supafil® 34

The internal sill is 20mm softwood with conductivity 0.12 W/mK

The cavity closer is 45mm high, consisting of insulation with conductivity 0.022 W/mK, within 2mm of PVC with conductivity 0.20 W/mK. The adiabatic frame is 70mm wide and the distance from the face of the brick to the frame is 60mm.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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	For Supafil® 34							
	100	nm cavity		•	150r	nm cavity		
Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
0.11	0.021	0.899	0.023	0.897	0.025	0.895		
0.15	0.020	0.900	0.022	0.897	0.024	0.896		
0.19	0.020	0.900	0.021	0.898	0.024	0.896		
0.31	0.019	0.901	0.021	0.898	0.023	0.896		
0.50	0.019	0.901	0.021	0.899	0.023	0.896		
	(W/mK) 0.11 0.15 0.19 0.31	Thermal Conductivity (W/mK) ψ-value 0.11 0.021 0.15 0.020 0.19 0.020 0.31 0.019	(W/mK) ψ-value Fvalue 0.11 0.021 0.899 0.15 0.020 0.900 0.19 0.020 0.900 0.31 0.019 0.901	IOOmm cavity 125π Thermal Conductivity (W/mK) ψvalue fvalue ψvalue 0.11 0.021 0.899 0.023 0.15 0.020 0.900 0.022 0.19 0.020 0.901 0.021	Thermal Conductivity (W/mK)ψ-valuef-valueψ-valuef-value0.110.0210.8990.0230.8970.150.0200.9000.0220.8970.190.0200.9000.0210.8980.310.0190.9010.0210.898	100mm cavity 125mm cavity 150m Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value ψ-value 0.11 0.021 0.899 0.023 0.897 0.025 0.15 0.020 0.900 0.021 0.898 0.024 0.19 0.019 0.901 0.021 0.898 0.023		

Table Ref: E3c

On-site checklist

Supafil® 34 installed in cavity

Frame overlap at least 30mm

Cavity closed with insulation with $\leq 0.026 \text{ W/mK}$

Site manager/supervisor:
Site name:
Plot number:
Date:



Junction refer E4- Window		
Ref:	KI_PSI_E4_DT34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		Outer leaf brickwork Close the cavity with insulation less than or equal to 0.026W/mK Minimum frame overlap to be 30mm DriTherm® Cavity Slab 34 Apply insulation with an R-value of at least 0.5m²K/W to the reveal Inner leaf blockwork Plasterboard on dabs

The jamb is lined with 10mm of insulation with conductivity 0.022 W/mK, covered with 12.5mm of plasterboard with conductivity 0.19 W/mK. The cavity closer is 45mm high, consisting of insulation with conductivity 0.022 W/mK, within 2mm of PVC with conductivity 0.20 W/mK. The adiabatic frame is 70mm wide and the distance from the face of the brick to the frame is 60mm.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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		For DriTherm® Cavity Slab 34						
		100	mm cavity	125	mm cavity	150	mm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.016	0.944	0.017	0.943	0.019	0.942	
Standard aircrete	0.15	0.015	0.945	0.017	0.943	0.019	0.942	
High strength aircrete	0.19	0.015	0.945	0.016	0.943	0.018	0.942	
Ultra lightweight aggregate	0.31	0.014	0.946	0.016	0.944	0.018	0.942	
Lightweight aggregate	0.50	0.014	0.946	0.016	0.944	0.017	0.943	

Table Ref: E4a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Frame overlap at least 30mm

Cavity closed with insulation with $\leq 0.026 \text{ W/mK}$

Insulation with an R-value of at least 0.5 m^2K/W applied to the reveal

Site manager/supervisor:

Site name:	
Plot number:	
Date:	







Junction refe E4- Window		
Ref:	KI_PSI_E4_DT32_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		Outer leaf brickwork Close the cavity with insulation less than or equal to 0.026W/mK Minimum frame overlap to be 30mm DriTherm® Cavity Slab 32 Apply insulation with an R-value of at least 0.5m²K/W to the reveal Inner leaf blockwork Plasterboard on dabs

The jamb is lined with 10mm of insulation with conductivity 0.022 W/mK, covered with 12.5mm of plasterboard with conductivity 0.19 W/mK. The cavity closer is 45mm high, consisting of insulation with conductivity 0.022 W/mK, within 2mm of PVC with conductivity 0.20 W/mK. The adiabatic frame is 70mm wide and the distance from the face of the brick to the frame is 60mm.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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		For DriTherm [®] Cavity Slab 32						
		100	mm cavity	125	mm cavity	150	mm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.016	0.944	0.018	0.943	0.020	0.942	
Standard aircrete	0.15	0.015	0.945	0.017	0.943	0.019	0.942	
High strength aircrete	0.19	0.015	0.945	0.017	0.944	0.019	0.942	
Ultra lightweight aggregate	0.31	0.015	0.946	0.016	0.944	0.018	0.943	
Lightweight aggregate	0.50	0.014	0.946	0.015	0.944	0.018	0.943	

Table Ref: E4b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Frame overlap at least 30mm

Cavity closed with insulation with $\leq 0.026 \text{ W/mK}$

Insulation with an R-value of at least 0.5 m^2K/W applied to the reveal

Site manager/supervisor:

Site name:	
Plot number:	
Date:	







Junction refere E4- Window j		
Ref:	KI_PSI_E4_SF34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		 Outer leaf brickwork Close the cavity with insulation less than or equal to 0.026W/mK Minimum frame overlap to be 30mm Supafil® 34 Apply insulation with an R-value of at least 0.5m²K/W to the reveal Inner leaf blockwork Plasterboard on dabs

The jamb is lined with 10mm of insulation with conductivity 0.022 W/mK, covered with 12.5mm of plasterboard with conductivity 0.19 W/mK. The cavity closer is 45mm high, consisting of insulation with conductivity 0.022 W/mK, within 2mm of PVC with conductivity 0.20 W/mK. The adiabatic frame is 70mm wide and the distance from the face of the brick to the frame is 60mm.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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	• • • •	•				
Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
0.11	0.016	0.944	0.017	0.943	0.019	0.942
0.15	0.015	0.945	0.017	0.943	0.019	0.942
0.19	0.015	0.945	0.016	0.943	0.018	0.942
0.31	0.014	0.946	0.016	0.944	0.018	0.942
0.50	0.014	0.946	0.016	0.944	0.017	0.943
	(W/mK) 0.11 0.15 0.19 0.31	Thermal Conductivity (W/mK) ψ-value 0.11 0.016 0.15 0.015 0.19 0.015 0.31 0.014	(W/mK) ψ -value Fvalue 0.11 0.016 0.944 0.15 0.015 0.945 0.19 0.015 0.945 0.31 0.014 0.946	I 00mm cavity 125m Thermal Conductivity (W/mK) ψvalue fvalue ψvalue 0.11 0.016 0.944 0.017 0.15 0.015 0.945 0.017 0.19 0.015 0.945 0.016 0.31 0.014 0.946 0.016	Thermal Conductivity (W/mK)ψ-valuef-valueψ-valuef-value0.110.0160.9440.0170.9430.150.0150.9450.0170.9430.190.0150.9450.0160.9430.310.0140.9460.0160.944	IOOmm cavity I25mm cavity I50m Thermal Conductivity (W/mK) ψ-value f-value ψ-value ψ-value 0.11 0.016 0.944 0.017 0.943 0.019 0.15 0.015 0.945 0.016 0.943 0.019 0.19 0.015 0.945 0.016 0.943 0.018

Table Ref: E4a

On-site checklist

Supafil[®] 34 installed in cavity

Frame overlap at least 30mm

Cavity closed with insulation with $\leq 0.026 \text{ W/mK}$

Insulation with an R-value of at least 0.5 m^2K/W applied to the reveal

Site manager/supervisor:

Site name:	
Plot number:	
Date:	







Junction reference: E5A - Slab on ground floor Ref: KI_PSI_E5A_DT34_0001 Dated: May 2021 Issued by: Knauf Insulation Ltd Inner leaf blockwork Outer leaf brickwork Plasterboard on dabs DriTherm® Cavity Slab 34 The R-value of the perimeter insulation should be at least 0.8m²K/W Ensure floor insulation is tightly butted against the external wall 100mm floor insulation with thermal conductivity of 0.022W/mK Continue cavity insulation at least 225mm below the top of the concrete

The ground floor U-value is found from the BRE U-value calculator with P = 1m and $A = 4m^2$. Ufloor = 0.146 W/m²K

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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	For DriTherm® Cavity Slab 34						
	100					nm cavity	
Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
0.11	0.037	0.940	0.034	0.943	0.033	0.944	
0.15	0.045	0.938	0.042	0.940	0.041	0.942	
0.19	0.051	0.936	0.049	0.938	0.048	0.940	
0.31	0.069	0.932	0.067	0.934	0.066	0.936	
0.50	0.091	0.928	0.090	0.931	0.088	0.933	
	(W/mK) 0.11 0.15 0.19 0.31	Thermal Conductivity (W/mK) ψ-value 0.11 0.037 0.15 0.045 0.19 0.051 0.31 0.069	IOOmm cavity Thermal Conductivity (W/mK) ψ-value f-value 0.11 0.037 0.940 0.15 0.045 0.938 0.19 0.051 0.932	IOOmm cavity 125π Thermal Conductivity (W/mK) ψ·value f·value ψ·value 0.11 0.037 0.940 0.034 0.15 0.045 0.938 0.042 0.19 0.051 0.936 0.049 0.31 0.069 0.932 0.067	IOOmm cavity I25mm cavity Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value 0.11 0.037 0.940 0.034 0.943 0.15 0.045 0.938 0.042 0.940 0.19 0.051 0.936 0.049 0.938 0.31 0.069 0.932 0.067 0.934	IOOmm cavity I25mm cavity I50m Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value ψ-value 0.11 0.037 0.940 0.034 0.943 0.033 0.15 0.045 0.938 0.042 0.940 0.041 0.19 0.051 0.936 0.049 0.938 0.048 0.31 0.069 0.932 0.067 0.934 0.066	

Table Ref: E5Aa

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Perimeter insulation with a resistance of at least 0.8 W/m²K installed

Floor insulation is tightly butted against the external wall

Cavity insulation continues at least 225mm below the top of the concrete

Site manager/supervisor:

Site name:	
Plot number:	
Date:	





Junction reference: E5A - Slab on ground floor

Ref:	KI_PSI_E5A_DT32_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		Inner leaf blockwork Outer leaf brickwork Plasterboard on dabs DriTherm® Cavity Slab 32 The R-value of the perimeter insulation should be at least 0.8m²K/W Ensure floor insulation is tightly butted against the external wall 100mm floor insulation with thermal
		Continue cavity insulation at least 225mm below the top of the concrete

The ground floor U-value is found from the BRE U-value calculator with P = 1m and $A = 4m^2$. Ufloor = 0.146 W/m²K

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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				For DriThern	n® Cavity Slo	ıb 32	
		100	nm cavity	125	nm cavity	150r	nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.037	0.941	0.035	0.943	0.033	0.945
Standard aircrete	0.15	0.044	0.938	0.042	0.941	0.041	0.942
High strength aircrete	0.19	0.051	0.936	0.049	0.939	0.048	0.940
Ultra lightweight aggregate	0.31	0.069	0.932	0.067	0.935	0.065	0.936
Lightweight aggregate	0.50	0.092	0.929	0.090	0.931	0.089	0.933

Table Ref: E5Ab

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Perimeter insulation with a resistance of at least 0.8 W/m²K installed

Floor insulation is tightly butted against the external wall

Cavity insulation continues at least 225mm below the top of the concrete

Site manager/supervisor:

Site name:	
Plot number:	
Date:	





Junction reference: E5A - Slab on ground floor Ref: KI_PSI_E5A_SF34_0001 Dated: May 2021 Issued by: Knauf Insulation Ltd Inner leaf blockwork Outer leaf brickwork Plasterboard on dabs Supafil® 34 The R-value of the perimeter insulation should be at least 0.8m²K/W Ensure floor insulation is tightly butted against the external wall 100mm floor insulation with thermal conductivity of 0.022W/mK Continue cavity insulation at least 225mm below the top of the concrete

The ground floor U-value is found from the BRE U-value calculator with P = 1m and $A = 4m^2$. Ufloor = 0.146 W/m²K

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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		For Supafil® 34					
	100	nm cavity	125r	nm cavity	150r	nm cavity	
Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
0.11	0.037	0.940	0.034	0.943	0.033	0.944	
0.15	0.045	0.938	0.042	0.940	0.041	0.942	
0.19	0.051	0.936	0.049	0.938	0.048	0.940	
0.31	0.069	0.932	0.067	0.934	0.066	0.936	
0.50	0.091	0.928	0.090	0.931	0.088	0.933	
	(W/mK) 0.11 0.15 0.19 0.31	Thermal Conductivity (W/mK) ψ-value 0.11 0.037 0.15 0.045 0.19 0.051 0.31 0.069	(W/mK)ψ-value+value0.110.0370.9400.150.0450.9380.190.0510.9360.310.0690.932	I00mm cavity 125m Thermal Conductivity (W/mK) ψ-value f-value ψ-value 0.11 0.037 0.940 0.034 0.15 0.045 0.938 0.042 0.19 0.051 0.936 0.049 0.31 0.069 0.932 0.067	100mm cavity 125mm cavity Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value 0.11 0.037 0.940 0.034 0.943 0.15 0.045 0.938 0.042 0.940 0.19 0.051 0.936 0.049 0.938 0.31 0.069 0.932 0.067 0.934	100mm cavity 125mm cavity 150m Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value ψ-value 0.11 0.037 0.940 0.034 0.943 0.033 0.15 0.045 0.938 0.042 0.940 0.041 0.19 0.051 0.936 0.049 0.938 0.048 0.31 0.069 0.932 0.067 0.934 0.066	

Table Ref: E5Aa

On-site checklist

Supafil[®] 34 installed in cavity

Perimeter insulation with a resistance of at least 0.8 W/m²K installed

Floor insulation is tightly butted against the external wall

Cavity insulation continues at least 225mm below the top of the concrete

Site manager/supervisor:

Site name:	
Plot number:	
Date:	

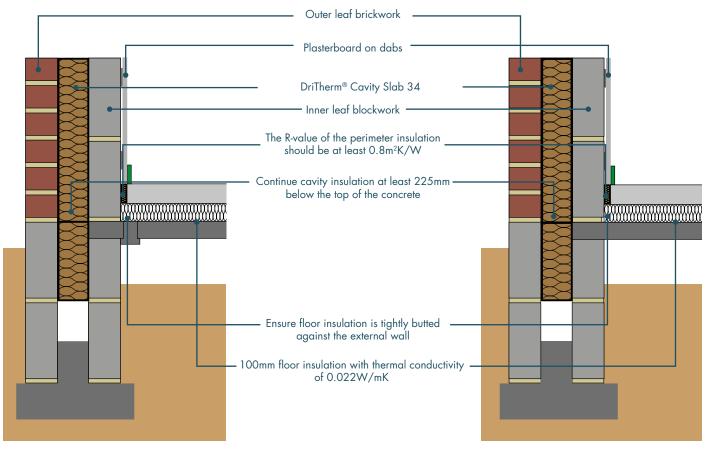




Junction reference: E5B - Beam and block floor

Ref:	KI_PSI_E5B_DT34_0001	Dated:	May 2021	
Issued by:	Knauf Insulation Ltd			

There are two cases, with beams parallel to and perpendicular to the wall. The resultant y-values and f-values can be averaged to provide values for the floor.



Only the beam closest to the wall is included as the others contribute to the U-value of the real floor. The modelling ground floor U-value is found from the BRE U-value calculator with P =1m and A = $4m^2$. Ufloor = 0.150 W/m²K. The modelling ground floor U-value is found from the BRE U-value calculator with P =1m and A = $4m^2$. Ufloor = 0.150 W/m²K

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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Average or parallel and perpendicular		For DriTherm® Cavity Slab 34						
	Thermal Conductivity (W/mK)	100mm cavity		125mm cavity		150mm cavity		
Block		ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.022	0.942	0.023	0.944	0.023	0.945	
Standard aircrete	0.15	0.030	0.939	0.030	0.941	0.030	0.943	
High strength aircrete	0.19	0.036	0.937	0.036	0.939	0.037	0.941	
Ultra lightweight aggregate	0.31	0.053	0.934	0.054	0.936	0.055	0.938	
Lightweight aggregate	0.50	0.074	0.931	0.076	0.933	0.077	0.935	

Table Ref: E5Ba3

There is a small difference between the values calculated with the beams parallel and perpendicular to the wall; the values in the tables are the average of these two cases.

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Perimeter insulation with R-value of at least 0.80 m²K/W installed

Floor insulation tightly butted against the external wall

Cavity insulation continues at least 225mm below the top of the beam and block floor

Site manager/supervisor:

Site name:	
Plot number:	
Date:	

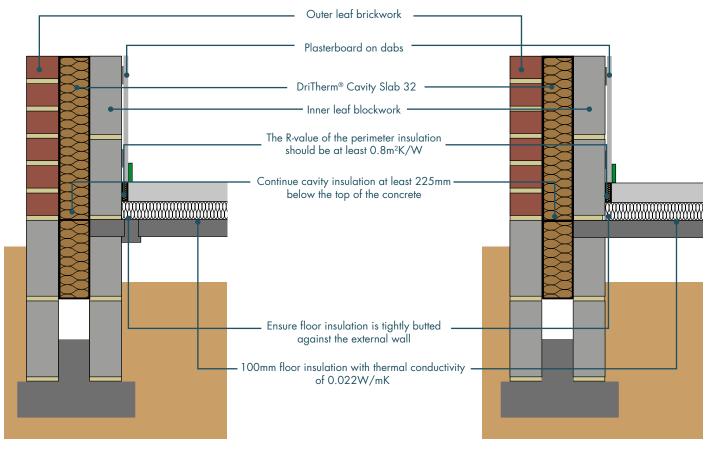




Junction reference: E5B - Beam and block floor

Ref:	KI_PSI_E5B_DT32_0001	Dated:	May 2021	
Issued by:	Knauf Insulation Ltd			

There are two cases, with beams parallel to and perpendicular to the wall. The resultant y-values and f-values can be averaged to provide values for the floor.



Only the beam closest to the wall is included as the others contribute to the U-value of the real floor. The modelling ground floor U-value is found from the BRE U-value calculator with P =1m and A = $4m^2$. Ufloor = 0.150 W/m²K. The modelling ground floor U-value is found from the BRE U-value calculator with P =1m and A = $4m^2$. Ufloor = 0.150 W/m²K

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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Average or parallel and perpendicular		For DriTherm® Cavity Slab 32							
		100	nm cavity	125r	nm cavity	150mm cavity			
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
High performance aircrete	0.11	0.022	0.942	0.022	0.944	0.023	0.946		
Standard aircrete	0.15	0.030	0.940	0.030	0.942	0.031	0.943		
High strength aircrete	0.19	0.036	0.938	0.037	0.940	0.037	0.941		
Ultra lightweight aggregate	0.31	0.053	0.934	0.054	0.937	0.055	0.938		
Lightweight aggregate	0.50	0.075	0.932	0.076	0.934	0.077	0.935		

Table Ref: E5Bb3

There is a small difference between the values calculated with the beams parallel and perpendicular to the wall; the values in the tables are the average of these two cases.

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Perimeter insulation with R-value of at least 0.80 m²K/W installed

Floor insulation tightly butted against the external wall

Cavity insulation continues at least 225mm below the top of the beam and block floor

Site manager/supervisor: Site name: Plot number: Date:



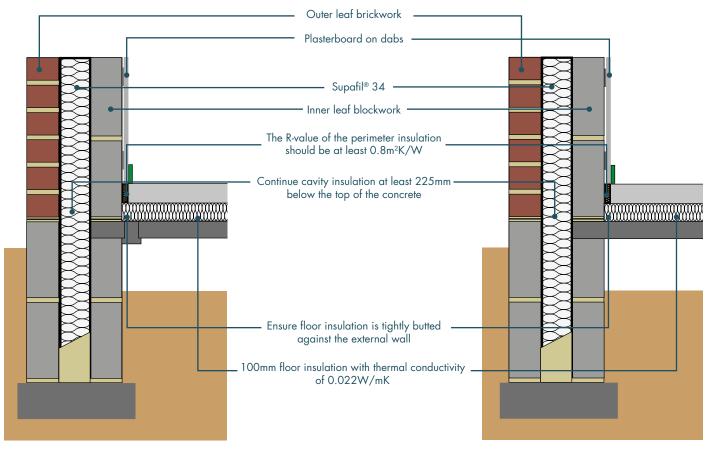
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Junction reference: E5B - Beam and block floor

Ref:	KI_PSI_E5B_SF34_0001	Dated:	May 2021	
Issued by:	Knauf Insulation Ltd			

There are two cases, with beams parallel to and perpendicular to the wall. The resultant y-values and f-values can be averaged to provide values for the floor.



Only the beam closest to the wall is included as the others contribute to the U-value of the real floor. The modelling ground floor U-value is found from the BRE U-value calculator with P =1m and A = $4m^2$. Ufloor = 0.150 W/m²K. The modelling ground floor U-value is found from the BRE U-value calculator with P =1m and A = $4m^2$. Ufloor = 0.150 W/m²K

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Average or parallel and perpendicular		For Supafil® 34							
		100mm cavity		125mm cavity		150mm cavity			
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
High performance aircrete	0.11	0.022	0.942	0.023	0.944	0.023	0.945		
Standard aircrete	0.15	0.030	0.939	0.030	0.941	0.030	0.943		
High strength aircrete	0.19	0.036	0.937	0.036	0.939	0.037	0.941		
Ultra lightweight aggregate	0.31	0.053	0.934	0.054	0.936	0.055	0.938		
Lightweight aggregate	0.50	0.074	0.931	0.076	0.933	0.077	0.935		

Table Ref: E5Ba3

There is a small difference between the values calculated with the beams parallel and perpendicular to the wall; the values in the tables are the average of these two cases.

On-site checklist

Supafil® 34 installed in cavity

Perimeter insulation with R-value of at least 0.80 m^2K/W installed

Floor insulation tightly butted against the external wall

Cavity insulation continues at least 225mm below the top of the beam and block floor

Site manager/supervisor:

Site name:	
Plot number:	
Date:	



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Junction reference: E6 - Intermediate floor within a dwelling

Ref:	KI_PSI_E6_DT34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
	•	Inner leaf blockwork
		— Outer leaf brickwork
	•	Plasterboard on dabs
		— DriTherm® Cavity Slab 34
		Insulation to be continuous across floor abutment zone

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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	For DriTherm® Cavity Slab 34							
	100	nm cavity	125mm cavity		150mm cavity			
Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
0.11	0.003	0.968	0.002	0.973	0.002	0.976		
0.15	0.004	0.967	0.002	0.972	0.002	0.976		
0.19	0.005	0.966	0.002	0.972	0.002	0.976		
0.31	0.005	0.966	0.004	0.971	0.003	0.975		
0.50	0.006	0.965	0.004	0.971	0.003	0.975		
	(W/mK) 0.11 0.15 0.19 0.31	Thermal Conductivity (W/mK) ψ-value 0.11 0.003 0.15 0.004 0.19 0.005 0.31 0.005	IOOmm cavity Thermal Conductivity (W/mK) ψ-value f-value 0.11 0.003 0.968 0.15 0.004 0.967 0.19 0.005 0.966 0.31 0.005 0.966	I 00mm cavity 125m Thermal Conductivity (W/mK) ψ-value f-value ψ-value 0.11 0.003 0.968 0.002 0.15 0.004 0.967 0.002 0.19 0.005 0.966 0.002 0.31 0.005 0.966 0.004	IOOmm cavity I25mm cavity Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value 0.11 0.003 0.968 0.002 0.973 0.15 0.004 0.967 0.002 0.972 0.19 0.005 0.966 0.002 0.972 0.31 0.005 0.966 0.004 0.971	100mm cavity 125mm cavity 150m Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value ψ-value 0.11 0.003 0.968 0.002 0.973 0.002 0.15 0.004 0.967 0.002 0.972 0.002 0.19 0.005 0.966 0.002 0.972 0.002 0.31 0.005 0.966 0.004 0.971 0.003		

Table Ref: E6a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Wall insulation continuous across the floor zone

Site manager/supervisor:

Site name:	
Plot number:	
Date:	



01744 766 666



Junction reference: E6 - Intermediate floor within a dwelling

Ref:	KI_PSI_E6_DT32_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
	•	Inner leaf blockwork
		— Outer leaf brickwork
	•	Plasterboard on dabs
		— DriTherm® Cavity Slab 32
		Insulation to be continuous across floor abutment zone

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products

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		For DriTherm® Cavity Slab 32							
Block		100	nm cavity	125mm cavity		150mm cavity			
	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
High performance aircrete	0.11	0.003	0.970	0.002	0.974	0.002	0.977		
Standard aircrete	0.15	0.003	0.968	0.002	0.973	0.002	0.977		
High strength aircrete	0.19	0.003	0.968	0.003	0.973	0.002	0.977		
Ultra lightweight aggregate	0.31	0.005	0.967	0.003	0.973	0.002	0.977		
Lightweight aggregate	0.50	0.005	0.966	0.004	0.972	0.003	0.976		

Table Ref: E6b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Wall insulation continuous across the floor zone

Site manager/supervisor:

Site name:	
Plot number:	
Date:	



01744 766 666



Junction reference: E6 - Intermediate floor within a dwelling

Ref:	KI_PSI_E6_SF34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
	•	Inner leaf blockwork
		— Outer leaf brickwork
	•	Plasterboard on dabs
		— Supafil® 34
		Insulation to be continuous across
		floor abutment zone
	=	
$\qquad \qquad $		

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability

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Block		For Supafil® 34							
		100	100mm cavity		nm cavity	150mm cavity			
	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
High performance aircrete	0.11	0.003	0.968	0.002	0.973	0.002	0.976		
Standard aircrete	0.15	0.004	0.967	0.002	0.972	0.002	0.976		
High strength aircrete	0.19	0.005	0.966	0.002	0.972	0.002	0.976		
Ultra lightweight aggregate	0.31	0.005	0.966	0.004	0.971	0.003	0.975		
Lightweight aggregate	0.50	0.006	0.965	0.004	0.971	0.003	0.975		

Table Ref: E6a

On-site checklist

Supafil[®] 34 installed in cavity

Wall insulation continuous across the floor zone

Site manager/supervisor:

Site name:	
Plot number:	
Date:	



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Junction reference: E7 - Separating floor between dwellings

Ref:	KI_PSI_E7_DT34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		 Inner leaf blockwork Outer leaf brickwork
		 Plasterboard on dabs DriTherm[®] Cavity Slab 34

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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Diagrams for illustrative purposes only

		For DriTherm® Cavity Slab 34						
		100	nm cavity	125r	nm cavity	150r	nm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.046	0.478	0.038	0.482	0.033	0.484	
Standard aircrete	0.15	0.047	0.477	0.039	0.481	0.033	0.484	
High strength aircrete	0.19	0.047	0.477	0.039	0.481	0.033	0.483	
Ultra lightweight aggregate	0.31	0.048	0.476	0.040	0.480	0.034	0.483	
Lightweight aggregate	0.50	0.049	0.475	0.040	0.479	0.034	0.482	

Table Ref: E7a

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the floor.

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Continue the wall insulation to abut the fire stop, where used

Proprietary fire stop to be the same W/mK as external wall insulation, where used

Site manager/supervisor:
Site name:
Plot number:
Date:

01744 766 666





Junction reference: E7 - Separating floor between dwellings

Ref:	KI_PSI_E7_DT32_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		— Inner leaf blockwork — Outer leaf brickwork
		 Plasterboard on dabs DriTherm[®] Cavity Slab 32

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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Diagrams for illustrative purposes only

	For DriTherm [®] Cavity Slab 32						
	100	nm cavity	125r	nm cavity	150r	nm cavity	
Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
0.11	0.044	0.479	0.036	0.482	0.031	0.485	
0.15	0.044	0.478	0.037	0.482	0.032	0.485	
0.19	0.045	0.478	0.037	0.482	0.032	0.484	
0.31	0.046	0.477	0.037	0.481	0.032	0.484	
0.50	0.046	0.476	0.038	0.480	0.033	0.483	
	(W/mK) 0.11 0.15 0.19 0.31	Thermal Conductivity (W/mK) ψ·value 0.11 0.044 0.15 0.044 0.19 0.045 0.31 0.046	IOOmm cavity Thermal Conductivity (W/mK) ψ-value f-value 0.11 0.044 0.479 0.15 0.044 0.478 0.19 0.045 0.478 0.31 0.046 0.477	100mm cavity 125m Thermal Conductivity (W/mK) ψ-value f-value ψ-value 0.11 0.044 0.479 0.036 0.15 0.044 0.478 0.037 0.19 0.045 0.478 0.037 0.31 0.046 0.477 0.037	IOOmm cavity I25mm cavity Thermal Conductivity (W/mK) ψ-value f-value ψ-value 0.11 0.044 0.479 0.036 0.482 0.15 0.044 0.478 0.037 0.482 0.19 0.045 0.478 0.037 0.482 0.31 0.046 0.477 0.037 0.481	100mm cavity 125mm cavity 150m Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value ψ-value φ-value f-value 0.031 0.031 0.032 <td< td=""></td<>	

Table Ref: E7b

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the floor.

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Continue the wall insulation to abut the fire stop, where used

Proprietary fire stop to be the same W/mK as external wall insulation, where used

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	



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Junction reference: E7 - Separating floor between dwellings

Ref:	KI_PSI_E7_SF34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		— Inner leaf blockwork — Outer leaf brickwork
		 — Plasterboard on dabs — Supafil[®] 34

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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Diagrams for illustrative purposes only

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		For Supafil® 34						
		100	nm cavity	125r	nm cavity	1 5 Or	nm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.046	0.478	0.038	0.482	0.033	0.484	
Standard aircrete	0.15	0.047	0.477	0.039	0.481	0.033	0.484	
High strength aircrete	0.19	0.047	0.477	0.039	0.481	0.033	0.483	
Ultra lightweight aggregate	0.31	0.048	0.476	0.040	0.480	0.034	0.483	
Lightweight aggregate	0.50	0.049	0.475	0.040	0.479	0.034	0.482	

Table Ref: E7a

 $^{\ast}\,\psi\text{-values}$ shown above are applicable to each dwelling on either side of the floor.

On-site checklist

Supafil® 34 installed in cavity

Continue the wall insulation to abut the fire stop, where used

Proprietary fire stop to be the same W/mK as external wall insulation, where used

Site manager/supervisor:
Site name:
Plot number:
Date:





Junction reference:

E10 - Eaves insulation at ceiling level (roof slope 35°)

Ref:	KI_PSI_E10_DT34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		 400mm Loft Roll 44 ARC Eaves insulation Fully fill the void with insulation Inner leaf blockwork Plasterboard on dabs DriTherm® Cavity Slab 34 Outer leaf brickwork

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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		For DriTherm® Cavity Slab 34						
		100	mm cavity	125	nm cavity	150r	nm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ -value	f-value	
High performance aircrete	0.11	0.061	0.927	0.071	0.927	0.079	0.927	
Standard aircrete	0.15	0.061	0.929	0.073	0.928	0.082	0.928	
High strength aircrete	0.19	0.062	0.930	0.075	0.930	0.084	0.930	
Ultra lightweight aggregate	0.31	0.063	0.932	0.077	0.933	0.087	0.933	
Lightweight aggregate	0.50	0.064	0.934	0.079	0.935	0.090	0.935	

Table Ref: E10a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

ARC Eaves Insulator

Fully fill the void with insulation

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	



Junction reference:

E10 - Eaves insulation at ceiling level (roof slope 35°)

Ref:	KI_PSI_E10_DT32_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		 400mm Loft Roll 44 ARC Eaves Insulator Fully fill the void with insulation Inner leaf blockwork Plasterboard on dabs DriTherm® Cavity Slab 32 Outer leaf brickwork

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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Block		For DriTherm [®] Cavity Slab 32							
	Thermal Conductivity (W/mK)	100	nm cavity	125mm cavity		150mm cavity			
		ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
High performance aircrete	0.11	0.063	0.927	0.073	0.927	0.927	0.924		
Standard aircrete	0.15	0.064	0.929	0.075	0.929	0.084	0.929		
High strength aircrete	0.19	0.065	0.930	0.077	0.930	0.086	0.930		
Ultra lightweight aggregate	0.31	0.067	0.932	0.080	0.933	0.090	0.933		
Lightweight aggregate	0.50	0.068	0.934	0.082	0.935	0.935	0.927		

Table Ref: E10b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

ARC Eaves Insulator

Fully fill the void with insulation

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	



Junction reference:

E10 - Eaves insulation at ceiling level (roof slope 35°)

Ref:	KI_PSI_E10_SF34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		 400mm Loft Roll 44 ARC Eaves Insulator Fully fill the void with insulation Inner leaf blockwork Plasterboard on dabs Supafil® 34 Outer leaf brickwork

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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		For Supafil® 34						
Block	Thermal Conductivity (W/mK)	100	nm cavity	125r	nm cavity	150r	150mm cavity	
		ψ-value	f-value	ψ -value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.061	0.927	0.071	0.927	0.079	0.927	
Standard aircrete	0.15	0.061	0.929	0.073	0.928	0.082	0.928	
High strength aircrete	0.19	0.062	0.930	0.075	0.930	0.084	0.930	
Ultra lightweight aggregate	0.31	0.063	0.932	0.077	0.933	0.087	0.933	
Lightweight aggregate	0.50	0.064	0.934	0.079	0.935	0.090	0.935	

Table Ref: E10a

On-site checklist

Supafil[®] 34 installed in cavity

ARC Eaves Insulator

Fully fill the void with insulation

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	





Junction reference:

E10 - Eaves insulation at ceiling level (roof slope 35°)

Ref:	KI_PSI_E10_DT34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		 400mm Loft Roll 44 ARC Eaves Insulator Fully fill the void with insulation Inner leaf blockwork Plasterboard on dabs DriTherm® Cavity Slab 34 Outer leaf brickwork

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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		For DriTherm® Cavity Slab 34						
Block	Thermal Conductivity (W/mK)	100	nm cavity	125mm cavity		150mm cavit		
		ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.061	0.927	0.071	0.927	0.079	0.927	
Standard aircrete	0.15	0.061	0.929	0.073	0.929	0.082	0.929	
High strength aircrete	0.19	0.062	0.930	0.075	0.930	0.084	0.930	
Ultra lightweight aggregate	0.31	0.063	0.932	0.077	0.933	0.087	0.933	
Lightweight aggregate	0.50	0.064	0.934	0.079	0.935	0.090	0.935	

Table Ref: E10a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Continuity of insulation between the loft and the external wall using ARC Eaves Insulator

Fully fill the void with insulation

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	



Junction reference:

E10 - Eaves insulation at ceiling level (roof slope 35°)

Ref:	KI_PSI_E10_DT32_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		 400mm Loft Roll 44 ARC Eaves Insulator Fully fill the void with insulation Inner leaf blockwork Plasterboard on dabs DriTherm® Cavity Slab 32 Outer leaf brickwork

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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	Ear DriTharm® Cavity Slah 29							
	100mm cavity				150mm cavity			
Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
0.11	0.063	0.927	0.073	0.927	0.081	0.927		
0.15	0.064	0.929	0.075	0.929	0.084	0.929		
0.19	0.065	0.930	0.077	0.930	0.086	0.930		
0.31	0.067	0.932	0.080	0.933	0.090	0.933		
0.50	0.068	0.934	0.082	0.935	0.092	0.935		
	(W/mK) 0.11 0.15 0.19 0.31	Thermal Conductivity (W/mK) ψ-value 0.11 0.063 0.15 0.064 0.19 0.065 0.31 0.067	IOOmm cavity Thermal Conductivity (W/mK) ψ-value f-value 0.11 0.063 0.927 0.15 0.064 0.929 0.19 0.065 0.930 0.31 0.067 0.932	I00mm cavity 125π Thermal Conductivity (W/mK) ψ-value f-value ψ-value 0.11 0.063 0.927 0.073 0.15 0.064 0.929 0.075 0.19 0.065 0.930 0.077 0.31 0.067 0.932 0.080	IOOmm cavity I25mm cavity Thermal Conductivity (W/mK) ψ-value f-value ψ-value 0.11 0.063 0.927 0.073 0.927 0.15 0.064 0.929 0.075 0.929 0.19 0.065 0.930 0.077 0.930 0.31 0.067 0.932 0.080 0.933	Thermal Conductivity (W/mK)ψ-valuef-valueψ-valuef-valueψ-value0.110.0630.9270.0730.9270.0810.150.0640.9290.0750.9290.0840.190.0650.9300.0770.9300.0860.310.0670.9320.0800.9330.090		

Table Ref: E10b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Continuity of insulation between the loft and the external wall using ARC Eaves Insulator

Fully fill the void with insulation

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	

Knauf Insulation Technical Support Team

PO Box 10, Stafford Road, St Helens, Merseyside, WA10 3NS 01744 766 666



Junction reference:

E10 - Eaves insulation at ceiling level (roof slope 35°)

Ref:	KI_PSI_E10_SF34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		 400mm Loft Roll 44 ARC Eaves Insulator Fully fill the void with insulation Inner leaf blockwork Plasterboard on dabs Supafil® 34 Outer leaf brickwork

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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	Thermal Conductivity (W/mK)	For Supafil® 34							
		100	nm cavity	125mm cavity		150mm cavity			
Block		ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
High performance aircrete	0.11	0.061	0.927	0.071	0.927	0.079	0.927		
Standard aircrete	0.15	0.061	0.929	0.073	0.929	0.082	0.929		
High strength aircrete	0.19	0.062	0.930	0.075	0.930	0.084	0.930		
Ultra lightweight aggregate	0.31	0.063	0.932	0.077	0.933	0.087	0.933		
Lightweight aggregate	0.50	0.064	0.934	0.079	0.935	0.090	0.935		

Table Ref: E10a

On-site checklist

Supafil[®] 34 installed in cavity

Continuity of insulation between the loft and the external wall using ARC Eaves Insulator

Fully fill the void with insulation

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	



lunction refer E11 - Eaves ir	ence: nsulation at rafter level	
Ref:	KI_PSI_E11_DT34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		 140mm OmniFit[®] Slab 35 Thermal laminate with 40.5mm thermal conductivity of 0.022W/mK + 12.5mm plasterboard Ensure continuity of insulation between the roof and external wall Fully-fill the void with insulation Plasterboard on dabs Inner leaf blockwork DriTherm[®] Cavity Slab 34 Outer leaf brickwork

As TRISCO does not model diagonal components, the Physibel software SOLIDO was used. The roof U-value was determined by a TRISCO model.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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		For DriTherm® Cavity Slab 34						
		100r	nm cavity	125	nm cavity	150r	nm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.010	0.950	0.016	0.951	0.020	0.951	
Standard aircrete	0.15	0.009	0.951	0.015	0.952	0.020	0.953	
High strength aircrete	0.19	0.008	0.952	0.015	0.953	0.020	0.954	
Ultra lightweight aggregate	0.31	0.008	0.954	0.015	0.955	0.020	0.956	
Lightweight aggregate	0.50	0.008	0.955	0.015	0.957	0.020	0.957	

Table Ref: E11a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Continuity of insulation between the roof and external wall

Fully fill the void with insulation

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	





Junction refer E11 - Eaves in	ence: nsulation at rafter level	
Ref:	KI_PSI_E11_DT32_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		 140mm OmniFit® Slab 35 Thermal laminate with 40.5mm thermal conductivity of 0.022W/mK + 12.5mm plasterboard Ensure continuity of insulation between the roof and external wall Fully-fill the void with insulation Plasterboard on dabs Inner leaf blockwork DriTherm® Cavity Slab 32 Outer leaf brickwork

As TRISCO does not model diagonal components, the Physibel software SOLIDO was used. The roof U-value was determined by a TRISCO model.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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		For DriTherm® Cavity Slab 32								
		100	nm cavity	125	mm cavity	1 5 Or	nm cavity			
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ -value	f-value			
High performance aircrete	0.11	0.011	0.952	0.017	0.951	0.021	0.952			
Standard aircrete	0.15	0.010	0.953	0.017	0.952	0.020	0.953			
High strength aircrete	0.19	0.010	0.954	0.016	0.953	0.021	0.954			
Ultra lightweight aggregate	0.31	0.009	0.955	0.016	0.955	0.021	0.956			
Lightweight aggregate	0.50	0.009	0.957	0.016	0.957	0.021	0.958			

Table Ref: E11b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Continuity of insulation between the roof and external wall

Fully fill the void with insulation

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	





Junction reference E11 - Eaves in	ence: nsulation at rafter level	
Ref: Issued by:	KI_PSI_E11_SF34_0001 Knauf Insulation Ltd	Dated: May 2021
		 140mm OmniFit® Slab 35 Thermal laminate with 40.5mm thermal conductivity of 0.022W/mK + 12.5mm plasterboard Ensure continuity of insulation between the roof and external wall Plasterboard on dabs Inner leaf blockwork Supafil® 34 Outer leaf brickwork

As TRISCO does not model diagonal components, the Physibel software SOLIDO was used. The roof U-value was determined by a TRISCO model.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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	Thermal Conductivity (W/mK)	For Supafil® 34						
		100r	nm cavity	125mm cavity		150mm cavity		
Block		ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.010	0.950	0.016	0.951	0.020	0.951	
Standard aircrete	0.15	0.009	0.951	0.015	0.952	0.020	0.953	
High strength aircrete	0.19	0.008	0.952	0.015	0.953	0.020	0.954	
Ultra lightweight aggregate	0.31	0.008	0.954	0.015	0.955	0.020	0.956	
Lightweight aggregate	0.50	0.008	0.955	0.015	0.957	0.020	0.957	

Table Ref: E11a

On-site checklist

Supafil[®] 34 installed in cavity

Continuity of insulation between the roof and external wall

Fully fill the void with insulation

Site manager/supervisor:
Site name:
Plot number:
Date:

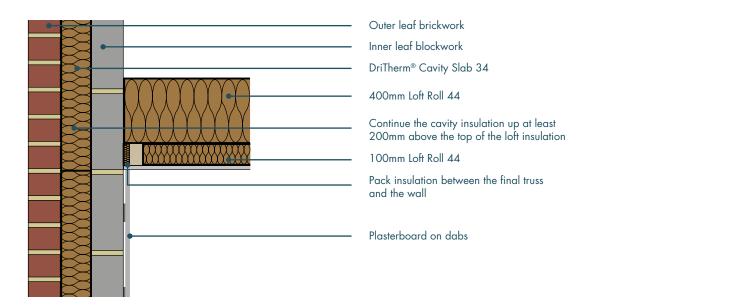


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Junction reference: E12 - Gable insulation at ceiling level

Ref:	KI_PSI_E12_DT34_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		



As TRISCO does not model diagonal components, the Physibel software SOLIDO was used. The roof U-value was determined by a TRISCO model.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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	For DriTherm® Cavity Slab 34					
Thermal Conductivity (W/mK)	100mm cavity		125mm cavity		150mm cavity	
	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
0.11	0.044	0.930	0.042	0.935	0.040	0.939
0.15	0.050	0.925	0.048	0.930	0.046	0.935
0.19	0.056	0.920	0.053	0.927	0.051	0.931
0.31	0.069	0.912	0.067	0.919	0.064	0.924
0.50	0.087	0.905	0.083	0.913	0.081	0.918
	(W/mK) 0.11 0.15 0.19 0.31	Thermal Conductivity (W/mK) ψ-value 0.11 0.044 0.15 0.050 0.19 0.056 0.31 0.069	IOOmm cavity Thermal Conductivity (W/mK) ψ-value f-value 0.11 0.044 0.930 0.15 0.050 0.925 0.19 0.056 0.920 0.31 0.069 0.912	IOOmm cavity 125π Thermal Conductivity (W/mK) ψ·value f·value ψ·value 0.11 0.044 0.930 0.042 0.15 0.050 0.925 0.048 0.19 0.056 0.920 0.053 0.31 0.069 0.912 0.067	IOOmm cavity I25mm cavity Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value 0.11 0.044 0.930 0.042 0.935 0.15 0.050 0.925 0.048 0.930 0.19 0.056 0.920 0.053 0.927 0.31 0.069 0.912 0.067 0.919	100mm cavity 125mm cavity 150m Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value ψ-value 0.11 0.044 0.930 0.042 0.935 0.040 0.15 0.050 0.925 0.048 0.930 0.046 0.19 0.056 0.920 0.053 0.927 0.051 0.31 0.069 0.912 0.067 0.919 0.064

Table Ref: E12a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Loft Roll 44 packed between the final truss and the wall

Cavity insulation continued at least 200mm above the top of the loft insulation

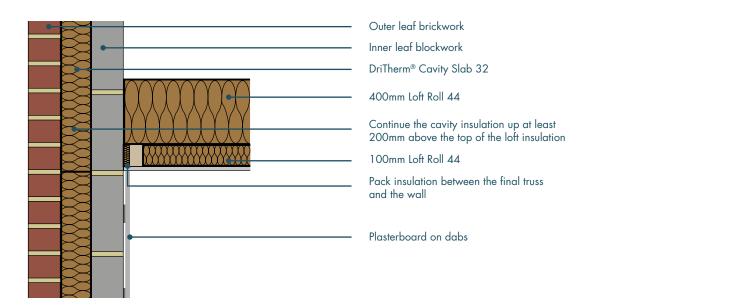
Site manager/supervisor:	
Site name:	
Plot number:	
Date:	





Junction reference: E12 - Gable insulation at ceiling level

Ref:	KI_PSI_E12_DT32_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		



As TRISCO does not model diagonal components, the Physibel software SOLIDO was used. The roof U-value was determined by a TRISCO model.

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		For DriTherm [®] Cavity Slab 32						
		100	nm cavity		nm cavity		nm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.043	0.932	0.041	0.937	0.039	0.941	
Standard aircrete	0.15	0.049	0.926	0.047	0.932	0.045	0.936	
High strength aircrete	0.19	0.054	0.922	0.052	0.928	0.050	0.933	
Ultra lightweight aggregate	0.31	0.069	0.914	0.066	0.921	0.063	0.926	
Lightweight aggregate	0.50	0.086	0.907	0.082	0.915	0.080	0.920	

Table Ref: E12b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Loft Roll 44 packed between the final truss and the wall

Cavity insulation continued at least 200mm above the top of the loft insulation

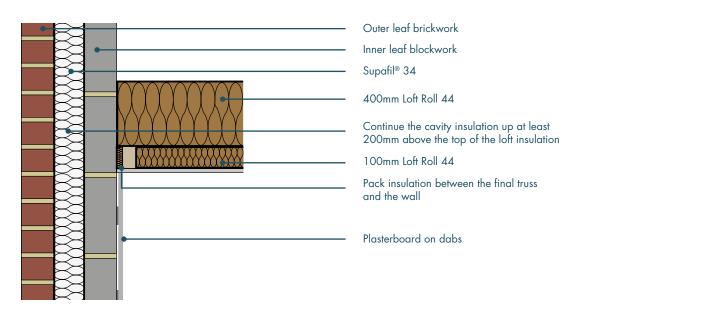
Site manager/supervisor:	
Site name:	
Plot number:	
Date:	





Junction reference: E12 - Gable insulation at ceiling level

Ref:	KI_PSI_E12_SF34_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		



As TRISCO does not model diagonal components, the Physibel software SOLIDO was used. The roof U-value was determined by a TRISCO model.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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		For Supafil® 34						
		100r	nm cavity	125	nm cavity	150r	nm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.044	0.930	0.042	0.935	0.040	0.939	
Standard aircrete	0.15	0.050	0.925	0.048	0.930	0.046	0.935	
High strength aircrete	0.19	0.056	0.920	0.053	0.927	0.051	0.931	
Ultra lightweight aggregate	0.31	0.069	0.912	0.067	0.919	0.064	0.924	
Lightweight aggregate	0.50	0.087	0.905	0.083	0.913	0.081	0.918	

Table Ref: E12a

On-site checklist

Supafil® 34 installed in cavity

Loft Roll 44 packed between the final truss and the wall

Cavity insulation continued at least 200mm above the top of the loft insulation

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	



Junction reference: E13 - Gable insulation at rafter level Ref: KI_PSI_E13_DT34_0001 Dated: May 2021 Knauf Insulation Ltd Issued by: Fill the void above the wall head with insulation Continue cavity insulation up to the wall head 140mm OmniFit® Slab 35 Knauf PIR Laminate Pack insulation between the final rafter and the wall DriTherm[®] Cavity Slab 34 Outer leaf brickwork Inner leaf blockwork Plasterboard on dabs

Wall head covered with 50mm of insulation k = 0.035 W/mK

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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		For DriTherm® Cavity Slab 34						
		100	nm cavity	125	nm cavity	150r	nm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.046	0.917	0.047	0.920	0.048	0.922	
Standard aircrete	0.15	0.053	0.912	0.053	0.916	0.055	0.918	
High strength aircrete	0.19	0.058	0.909	0.059	0.913	0.060	0.916	
Ultra lightweight aggregate	0.31	0.069	0.905	0.070	0.910	0.071	0.913	
Lightweight aggregate	0.50	0.080	0.905	0.081	0.910	0.082	0.913	

Table Ref: E13a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Cavity insulation continued up to the wall head

Void above the wall head filled with 50mm OmniFit® Slab 35

OmniFit® Slab 35 packed between the final rafter and the wall

Site manager/supervisor:

Site name:	
Plot number:	
Date:	



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Junction reference: E13 - Gable insulation at rafter level Ref: KI_PSI_E13_DT32_0001 Dated: May 2021 Knauf Insulation Ltd Issued by: Fill the void above the wall head with insulation Continue cavity insulation up to the wall head 140mm OmniFit® Slab 35 Knauf PIR Laminate Pack insulation between the final rafter and the wall DriTherm[®] Cavity Slab 32 Outer leaf brickwork Inner leaf blockwork Plasterboard on dabs

Wall head covered with 50mm of insulation k = 0.035 W/mK

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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		For DriTherm® Cavity Slab 32							
		100	mm cavity	125	mm cavity	150r	nm cavity		
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value		
High performance aircrete	0.11	0.046	0.918	0.047	0.921	0.048	0.923		
Standard aircrete	0.15	0.052	0.913	0.053	0.917	0.055	0.919		
High strength aircrete	0.19	0.058	0.910	0.059	0.914	0.060	0.917		
Ultra lightweight aggregate	0.31	0.070	0.907	0.070	0.911	0.071	0.914		
Lightweight aggregate	0.50	0.080	0.906	0.081	0.911	0.083	0.914		

Table Ref: E13b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Cavity insulation continued up to the wall head

Void above the wall head filled with 50mm OmniFit® Slab 35

OmniFit® Slab 35 packed between the final rafter and the wall

Site manager/supervisor: Site name: Plot number:

Date:

Knauf Insulation Technical Support Team

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Junction reference: E13 - Gable insulation at rafter level Ref: KI_PSI_E13_SF34_0001 Dated: May 2021 Knauf Insulation Ltd Issued by: Fill the void above the wall head with insulation Continue cavity insulation up to the wall head 140mm OmniFit® Slab 35 Knauf PIR Laminate Pack insulation between the final rafter and the wall Supafil® 34 Outer leaf brickwork Inner leaf blockwork Plasterboard on dabs

Wall head covered with 50mm of insulation k = 0.035 W/mK

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	For Supafil® 34						
	100	mm cavity	125	mm cavity	150	mm cavity	
Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
0.11	0.046	0.917	0.047	0.920	0.048	0.922	
0.15	0.053	0.912	0.053	0.916	0.055	0.918	
0.19	0.058	0.909	0.059	0.913	0.060	0.916	
0.31	0.069	0.905	0.070	0.910	0.071	0.913	
0.50	0.080	0.905	0.081	0.910	0.082	0.913	
	(W/mK) 0.11 0.15 0.19 0.31	Thermal Conductivity (W/mK) ψ-value 0.11 0.046 0.15 0.053 0.19 0.058 0.31 0.069	(W/mK)ψ-valueF-value0.110.0460.9170.150.0530.9120.190.0580.9090.310.0690.905	IOOmm cavity 125 Thermal Conductivity (W/mK) ψ-value f-value ψ-value 0.11 0.046 0.917 0.047 0.15 0.053 0.912 0.053 0.19 0.058 0.909 0.059 0.31 0.069 0.905 0.070	IOOmm cavity I25mm cavity Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value 0.11 0.046 0.917 0.047 0.920 0.15 0.053 0.912 0.053 0.916 0.19 0.058 0.909 0.059 0.913 0.31 0.069 0.905 0.070 0.910	100mm cavity 125mm cavity 150m Thermal Conductivity (W/mK) ψ-value fvalue ψ-value fvalue ψ-value fvalue φ-value 0.048 0.011 0.046 0.917 0.047 0.920 0.048 0.055 0.015 0.053 0.912 0.053 0.916 0.055 0.055 0.019 0.058 0.909 0.059 0.913 0.060 0.071 0.31 0.069 0.905 0.070 0.910 0.071 0.071	

Table Ref: E13a

On-site checklist

Supafil[®] 34 installed in cavity

Cavity insulation continued up to the wall head

Void above the wall head filled with 50mm OmniFit® Slab 35

OmniFit® Slab 35 packed between the final rafter and the wall

Site manager/supervisor:

Site name:	
Plot number:	
Date:	



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E16 - Corner	e nce: - normal	
Ref:	KI_PSI_E16_DT34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		Ensure continuity of insulation at the corner Outer leaf brickwork

Plasterboard on dabs

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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		For DriTherm [®] Cavity Slab 34							
		100	mm cavity	125	mm cavity	150r	nm cavity		
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ -value	f-value		
High performance aircrete	0.11	0.039	0.912	0.037	0.922	0.036	0.929		
Standard aircrete	0.15	0.045	0.909	0.042	0.920	0.040	0.928		
High strength aircrete	0.19	0.048	0.908	0.045	0.919	0.042	0.928		
Ultra lightweight aggregate	0.31	0.055	0.908	0.050	0.920	0.047	0.929		
Lightweight aggregate	0.50	0.061	0.911	0.055	0.924	0.050	0.933		

Table Ref: E16a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Continuity of insulation at the corner

Site manager/supervisor:

Site name:	
Plot number:	
Date:	



Junction refer E16 - Corner			
Ref:	KI_PSI_E16_DT32_0001	Dated: May 2021	
Issued by:	Knauf Insulation Ltd	,	
		 Ensure continuity of insulation at the corner Outer leaf brickwork DriTherm® Cavity Slab 32 Inner leaf blockwork Plasterboard on dabs 	

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		For DriTherm® Cavity Slab 32					
		100	100mm cavity 125mm cavity			150mm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.039	0.912	0.037	0.922	0.036	0.929
Standard aircrete	0.15	0.045	0.909	0.042	0.920	0.040	0.928
High strength aircrete	0.19	0.048	0.908	0.045	0.919	0.042	0.928
Ultra lightweight aggregate	0.31	0.055	0.908	0.050	0.920	0.047	0.929
Lightweight aggregate	0.50	0.061	0.911	0.055	0.924	0.050	0.933

Table Ref: E16b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Continuity of insulation at the corner

Site manager/supervisor:

Site name:	
Plot number:	
Date:	





Junction refer E16 - Corner			
Ref:	KI_PSI_E16_SF34_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		
		 Ensure continuity of insulat the corner Outer leaf brickwork Supafil® 34 Inner leaf blockwork 	ion at

Plasterboard on dabs

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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				For S	upafil® 34		
		100	100mm cavity		125mm cavity		nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.039	0.912	0.037	0.922	0.036	0.929
Standard aircrete	0.15	0.045	0.909	0.042	0.920	0.040	0.928
High strength aircrete	0.19	0.048	0.908	0.045	0.919	0.042	0.928
Ultra lightweight aggregate	0.31	0.055	0.908	0.050	0.920	0.047	0.929
Lightweight aggregate	0.50	0.061	0.911	0.055	0.924	0.050	0.933

Table Ref: E16a

On-site checklist

Supafil® 34 installed in cavity

Continuity of insulation at the corner

Site manager/supervisor:

Site name:	
Plot number:	
Date:	





Junction reference: E17 - Corner - inverted Ref: KI_PSI_E17_DT34_0001 Dated: May 2021 Issued by: Knauf Insulation Ltd Plasterboard on dabs Ensure continuity of insulation at the corner Outer leaf brickwork DriTherm® Cavity Slab 34 Inner leaf blockwork

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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			For DriTherm	® Cavity Sla	ıb 34	
	100m					m cavity
Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
0.11	-0.091	0.970	-0.086	0.974	-0.082	0.978
0.15	-0.098	0.968	-0.091	0.973	-0.086	0.977
0.19	-0.102	0.967	-0.095	0.972	-0.089	0.976
0.31	-0.109	0.966	-0.100	0.971	-0.092	0.975
0.50	-0.113	0.964	-0.103	0.970	-0.095	0.975
	(W/mK) 0.11 0.15 0.19 0.31	Thermal Conductivity (W/mK) ψ-value 0.11 -0.091 0.15 -0.098 0.19 -0.102 0.31 -0.109	IOOmm cavity Thermal Conductivity (W/mK) ψ-value f-value 0.11 -0.091 0.970 0.15 -0.098 0.968 0.19 -0.102 0.967 0.31 -0.109 0.966	I00mm cavity 125m Thermal Conductivity (W/mK) ψ-value f-value ψ-value 0.11 -0.091 0.970 -0.086 0.15 -0.098 0.968 -0.091 0.19 -0.102 0.967 -0.095 0.31 -0.109 0.966 -0.100	IOOmm cavity I25mm cavity Thermal Conductivity (W/mK) ψ-value f-value ψ-value f-value 0.11 -0.091 0.970 -0.086 0.974 0.15 -0.098 0.968 -0.091 0.973 0.19 -0.102 0.967 -0.095 0.972 0.31 -0.109 0.966 -0.100 0.971	Thermal Conductivity (W/mK)ψ-valuef-valueψ-valuef-valueψ-value0.11-0.0910.970-0.0860.974-0.0820.15-0.0980.968-0.0910.973-0.0860.19-0.1020.967-0.0950.972-0.0890.31-0.1090.966-0.1000.971-0.092

Table Ref: E17a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Continuity of insulation at the corner

Site manager/supervisor:

Site name:	
Plot number:	
Date:	





Junction reference: E17 - Corner - inverted Ref: KI_PSI_E17_DT32_0001 Dated: May 2021 Issued by: Knauf Insulation Ltd Plasterboard on dabs Ensure continuity of insulation at the corner Outer leaf brickwork DriTherm® Cavity Slab 32 Inner leaf blockwork

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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100m ψ-value -0.088	1m cavity f-value 0.971	ψ-value	m cavity f-value		im cavity f-value
ψ-value	f-value	ψ-value	f-value		
		•		ψ-value	f-value
_0.088	0 071	0.007			
0.000	0.971	-0.083	0.976	-0.078	0.979
-0.094	0.970	-0.087	0.974	-0.082	0.978
-0.099	0.969	-0.091	0.974	-0.084	0.977
-0.105	0.967	-0.095	0.973	-0.088	0.976
-0.107	0.966	-0.098	0.972	-0.090	0.976
	-0.105	-0.105 0.967	-0.105 0.967 -0.095	-0.105 0.967 -0.095 0.973	-0.105 0.967 -0.095 0.973 -0.088

Table Ref: E17b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Continuity of insulation at the corner

Site manager/supervisor:

Site name:	
Plot number:	
Date:	





Junction refer E17 - Corner		
Ref:	KI_PSI_E17_SF34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		Plasterboard on dabs
		Ensure continuity of insulation at the corner
		Outer leaf brickwork
		——— Supafil® 34
		Inner leaf blockwork

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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				For Su	pafil® 34		
		100m	ım cavity	125m	m cavity	150m	ım cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	-0.091	0.970	-0.086	0.974	-0.082	0.978
Standard aircrete	0.15	-0.098	0.968	-0.091	0.973	-0.086	0.977
High strength aircrete	0.19	-0.102	0.967	-0.095	0.972	-0.089	0.976
Ultra lightweight aggregate	0.31	-0.109	0.966	-0.100	0.971	-0.092	0.975
Lightweight aggregate	0.50	-0.113	0.964	-0.103	0.970	-0.095	0.975

Table Ref: E17a

On-site checklist

Supafil[®] 34 installed in cavity

Continuity of insulation at the corner

Site manager/supervisor:

Site name:	
Plot number:	
Date:	



Junction reference: E18 - Separating wall between dwellings

sued by: Knauf Insulation Ltd Inner leaf blockwork Outer leaf brickwork Cavity barrier	Inner leaf blockwork
Outer leaf brickwork	
Outer leaf brickwork	
	Outer leaf brickwork
Cavity barrier	
	Cavity barrier
Plasterboard on dabs	Plasterboard on dabs

Ensure continuity of insulation between external and separating wall 100mm Masonry Party Wall Slab DriTherm® Cavity Slab 34

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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125mm cavity	150	mm cavity
alue f-value	ψ -value	f-value
0.477	0.028	0.480
0.476	0.030	0.479
0.476	0.030	0.479
0.475	0.032	0.478
0.475	0.033	0.479
)	034 0.476 036 0.475	0340.4760.0300360.4750.032

Table Ref: E18a1

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Separating wall cavity filled with Masonry Party Wall Slab

Continuity of insulation between the external and separating walls

Site manager/supervisor:

Site name:	
Plot number:	
Date:	





Junction reference: E18 - Separating wall between dwellings

Ref:	KI_PSI_E18b_DT32_0001	Dated:	May 2021	
Issued by:	Knauf Insulation Ltd			
		– Inner leaf blockwork		

Outer leaf brickwork

Cavity barrier

Plasterboard on dabs

Ensure continuity of insulation between external and separating wall

100mm Masonry Party Wall Slab

DriTherm[®] Cavity Slab 32

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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				For DriTherm = 0.50 W/mK, Pa		ib 32 = Masonry Party Wa	ll Slab
		100	nm cavity	125r	nm cavity	150r	nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.035	0.479	0.031	0.482	0.027	0.485
Standard aircrete	0.15	0.037	0.478	0.032	0.482	0.029	0.484
High strength aircrete	0.19	0.039	0.478	0.033	0.481	0.029	0.484
Ultra lightweight aggregate	0.31	0.041	0.477	0.035	0.481	0.030	0.483
Lightweight aggregate	0.50	0.043	0.476	0.036	0.480	0.031	0.483

Table Ref: E18a3

 $^{\ast}\,\,\psi\text{-values}$ shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Separating wall cavity filled with Masonry Party Wall Slab

Continuity of insulation between the external and separating walls

Site manager/supervisor:

Site name:	
Plot number:	
Date:	





Junction reference: E18 - Separating wall between dwellings

Ref:	KI_PSI_E18b_DT34_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		
		Inner leaf blockwork	
		Outer leaf brickwork	

Cavity barrier Plasterboard on dabs Ensure continuity of insulation between external and separating wall 100mm Masonry Party Wall Slab DriTherm[®] Cavity Slab 34

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition).

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vity 125mm cavity	150mm cavity
lue ψ-value f-value	ψ-value f-value
478 0.034 0.481	0.030 0.483
477 0.035 0.480	0.031 0.483
476 0.036 0.480	0.032 0.482
475 0.039 0.479	0.034 0.482
474 0.040 0.479	0.035 0.482
	477 0.035 0.480 476 0.036 0.480 475 0.039 0.479

Table Ref: E18a2

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Separating wall cavity filled with Masonry Party Wall Slab

Continuity of insulation between the external and separating walls

Site manager/supervisor:

Site name:	
Plot number:	
Date:	

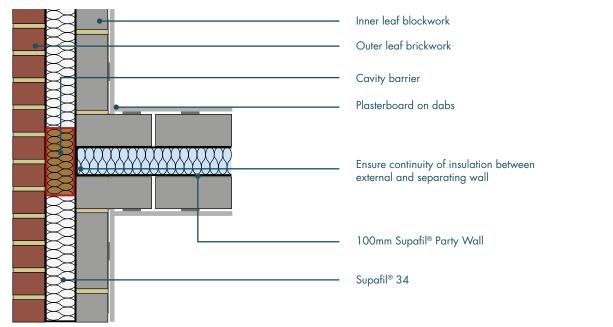






Junction reference: E18 - Separating wall between dwellings

Ref:	KI_PSI_E18a_SF34_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		



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			Party wall block	For Supafil [®] 34 k = 0.15 W/mK, Party wall insulation	n = Supafil® Party Wall		
		100	100mm cavity 125mm cavity	nm cavity	150mm cavity		
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.036	0.474	0.031	0.477	0.028	0.480
Standard aircrete	0.15	0.038	0.472	0.033	0.476	0.030	0.479
High strength aircrete	0.19	0.040	0.472	0.034	0.476	0.030	0.479
Ultra lightweight aggregate	0.31	0.042	0.471	0.036	0.475	0.032	0.478
Lightweight aggregate	0.50	0.044	0.471	0.038	0.475	0.033	0.479

Table Ref: E18a1

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

Supafil[®] 34 installed in cavity

Separating wall cavity filled with Supafil® Party Wall

Continuity of insulation between the external and separating walls

Site manager/supervisor:

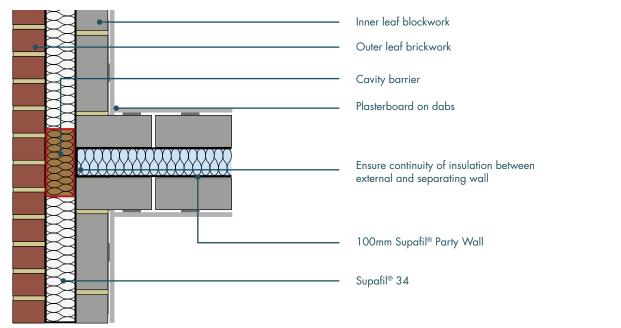
Site name:	
Plot number:	
Date:	





Junction reference: E18 - Separating wall between dwellings

Ref:	KI_PSI_E18b_SF34_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		



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		the second se	For Supafil® 34 k = 0.50 W/mK, Party wall insulation	n = Supafil® Party Wall		
	100mm cavity 125mm cav	nm cavity	150mm cavity			
Thermal Conductivity (W/mK)	ψ-value	f-value	ψ -value	f-value	ψ -value	f-value
0.11	0.039	0.478	0.034	0.481	0.030	0.483
0.15	0.041	0.477	0.035	0.480	0.031	0.483
0.19	0.043	0.476	0.036	0.480	0.032	0.482
0.31	0.045	0.475	0.039	0.479	0.034	0.482
0.50	0.047	0.474	0.040	0.479	0.035	0.482
	(W/mK) 0.11 0.15 0.19 0.31	Thermal Conductivity (W/mK) ψ-value 0.11 0.039 0.15 0.041 0.19 0.043 0.31 0.045	Thermal Conductivity (W/mK) ψ-value f-value 0.11 0.039 0.478 0.15 0.041 0.477 0.19 0.043 0.476 0.31 0.045 0.475	Thermal Conductivity (W/mK)ψ-valuef-valueψ-value0.110.0390.4780.0340.150.0410.4770.0350.190.0430.4760.0360.310.0450.4750.039	Thermal Conductivity (W/mK)ψ-valuef-valueψ-valuef-value0.110.0390.4780.0340.4810.150.0410.4770.0350.4800.190.0430.4760.0360.4800.310.0450.4750.0390.479	Thermal Conductivity (W/mK)ψ-valuef-valueψ-valuef-valueψ-value0.110.0390.4780.0340.4810.0300.150.0410.4770.0350.4800.0310.190.0430.4760.0360.4800.0320.310.0450.4750.0390.4790.034

Table Ref: E18a2

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

Supafil[®] 34 installed in cavity

Separating wall cavity filled with Supafil® Party Wall

Continuity of insulation between the external and separating walls

Site manager/supervisor:

Site name:	
Plot number:	
Date:	



Junction reference: E20 - Exposed floor normal over garage

Ref:	KI_PSI_E20_DT34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
	•	Plasterboard on dabs
		— DriTherm® Cavity Slab 34
		Continue the wall insulation across the floor zone
	· · · · · · · · · · · · · · · · · · ·	— Habitable space
		— Outer leaf brickwork
		— 240mm OmniFit® Roll 40 — Inner leaf blockwork
	· · · · · · · · · · · · · · · · · · ·	— Garage space

The figure shows the cross section of the the central area of the model, with the imposed temperatures and the surface hear transfer coefficients adopted. The garage is assumed to be at 0°C, but with internal surface transfer coefficients.

The model is 0.6m deep with a cross section of the floor shown in the figure below. The U-value is found from : U = Q / (0.6-DT) - $L_{mart}U_{mart} - L_{mart}U_{mart}$

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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Block					b 34		
		100	nm cavity		150mm cavity		
	Thermal Conductivity (W/mK)	ψ-value	f-value		f-value	ψ-value	f-value
High performance aircrete	0.11	0.034	0.895	0.039	0.900	0.039	0.904
Standard aircrete	0.15	0.047	0.889	0.046	0.894	0.046	0.898
Lightweight aggregate	0.50	0.101	0.861	0.103	0.866	0.103	0.870

Table Ref: E20a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Wall insulation continuous across the floor zone

Site manager/supervisor:

Site name:	
Plot number:	
Date:	





Junction reference: E20 - Exposed floor normal over garage

Ref:	KI_PSI_E20_DT32_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
	•	Plasterboard on dabs
		— DriTherm [®] Cavity Slab 32
		Continue the wall insulation across the floor zone
	•	— Habitable space
		— Outer leaf brickwork
		— 240mm OmniFit® Roll 40 — Inner leaf blockwork
	•	— Garage space

The figure shows the cross section of the the central area of the model, with the imposed temperatures and the surface hear transfer coefficients adopted. The garage is assumed to be at 0°C, but with internal surface transfer coefficients.

The model is 0.6m deep with a cross section of the floor shown in the figure below. The U-value is found from : U = Q / (0.6 DT) - $L_{wrill} \cdot U_{wrill} - L_{floor} \cdot U_{floor}$

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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			For DriTherm® Cavity	n® Cavity Sla	b 32		
		100	nm cavity	125r	125mm cavity	150mm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.036	0.897	0.036	0.902	0.036	0.905
Standard aircrete	0.15	0.043	0.890	0.044	0.895	0.044	0.899
Lightweight aggregate	0.50	0.098	0.862	0.100	0.868	0.101	0.871

Table Ref: E20b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Wall insulation continuous across the floor zone

Site manager/supervisor:

Site name:	
Plot number:	
Date:	





Junction reference: E20 - Exposed floor normal over garage

The figure shows the cross section of the the central area of the model, with the imposed temperatures and the surface hear transfer coefficients adopted. The garage is assumed to be at 0°C, but with internal surface transfer coefficients.

The model is 0.6m deep with a cross section of the floor shown in the figure below. The U-value is found from : U = Q / (0.6-DT) - $L_{wal} |U_{wal} - L_{hoor} U_{hoor}$

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	For Supafil® 34						
		100	nm cavity	125r	nm cavity	150r	nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.034	0.895	0.039	0.900	0.039	0.904
Standard aircrete	0.15	0.047	0.889	0.046	0.894	0.046	0.898
Lightweight aggregate	0.50	0.101	0.861	0.103	0.866	0.103	0.870

Table Ref: E20a

On-site checklist

Supafil[®] 34 installed in cavity

Wall insulation continuous across the floor zone

Site name:	
Plot number:	
Date:	





Junction reference:

E24.1 - Eaves insulation at ceiling inverted: Pitched roof concrete lintel

Ref:	KI_PSI_E24.1_DT34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
•		– Outer leaf brickwork – Inner leaf blockwork
Y Y Y Y Y I		 Plasterboard on dabs
		– Habitable space
		– DriTherm® Cavity Slab 34
		 Ensure the roof insulation is tightly butted to the wall
		– 400mm Loft Roll 44
•		– Habitable space
	· · · · · · · · · · · · · · · · · · ·	– Habitable space

Cross section of model E24.1 The model is 0.6m deep with a cross section of the floor shown in the figure below. Cross Section of ceiling model The U-value is found from : U = Q / (0.6·DT) - L_{unt}, U_{unt} - L_{floor}, U_{floor}

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		For DriTherm® Cavity Slab 34						
		100	nm cavity	125r	nm cavity	150r	nm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.107	0.891	0.110	0.889	0.112	0.887	
Standard aircrete	0.15	0.105	0.891	0.108	0.889	0.110	0.888	
Lightweight aggregate	0.50	0.099	0.893	0.105	0.891	0.108	0.889	

Table Ref: E24.1a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

400mm Loft Roll 44 is tightly butted to the wall

Site name:	
Plot number:	
Date:	



Junction reference:

E24.1 - Eaves insulation at ceiling inverted: Pitched roof concrete lintel

Ref:	KI_PSI_E24.1_DT32_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		Outer leaf brickworkInner leaf blockwork
		 Plasterboard on dabs
		 Habitable space
		– DriTherm® Cavity Slab 32
		 Ensure the roof insulation is tightly butted to the wall
		— 400mm Loft Roll 44
•		– Habitable space
	· · · · · · · · · · · · · · · · · · ·	- Habitable space
•	•	

Cross section of model E24.1 The model is 0.6m deep with a cross section of the floor shown in the figure below. Cross Section of ceiling model The U-value is found from : U = Q / (0.6·DT) - L_{und}·U_{und} - L_{floor}·U_{floor}

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	For DriTherm® Cavity Slab 32						
		100r	nm cavity	125r	nm cavity	150r	nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.100	0.890	0.104	0.888	0.107	0.887
Standard aircrete	0.15	0.098	0.891	0.103	0.889	0.106	0.887
Lightweight aggregate	0.50	0.092	0.893	0.098	0.890	0.103	0.888

Table Ref: E24.1b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

400mm Loft Roll 44 is tightly butted to the wall

Site name:	
Plot number:	
Date:	



Junction reference:

E24.1 - Eaves insulation at ceiling inverted: Pitched roof concrete lintel

Ref:	KI_PSI_E24.1_SF34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		Outer leaf brickwork Inner leaf blockwork Plasterboard on dabs Habitable space Supafil® 34
•		Ensure the roof insulation is tightly butted to the wall 400mm Loft Roll 44 Habitable space Habitable space

Cross section of model E24.1 The model is 0.6m deep with a cross section of the floor shown in the figure below. Cross Section of ceiling model The U-value is found from : U = Q / (0.6·DT) · L_{und}·U_{und} · L_{floor}·U_{floor}

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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		For Supafil® 34						
		100r	nm cavity	125r	nm cavity	150r	nm cavity	
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.107	0.891	0.110	0.889	0.112	0.887	
Standard aircrete	0.15	0.105	0.891	0.108	0.889	0.110	0.888	
Lightweight aggregate	0.50	0.099	0.893	0.105	0.891	0.108	0.889	

Table Ref: E24.1a

On-site checklist

Supafil® 34 installed in cavity

400mm Loft Roll 44 is tightly butted to the wall

Site manager/supervisor:

Site name:	
Plot number:	
Date:	



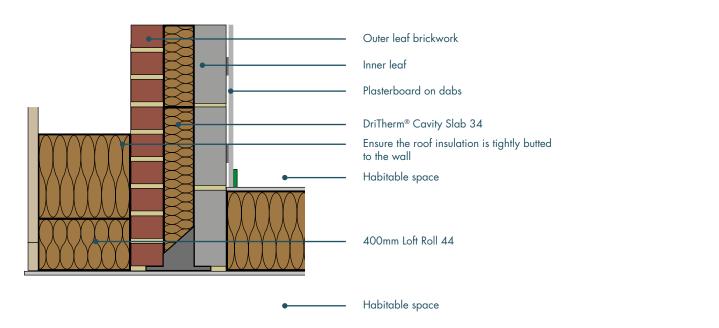
PO Box 10, Stafford Road, St Helens, Merseyside, WA10 3NS 01744 766 666



Junction reference:

E24.2 - Eaves insulation at ceiling inverted: Bay window steel lintel

Ref:	KI_PSI_E24.2_DT34_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		



Model of detail E24.2 The model is 0.6m deep with a cross section of the floor shown in 24.1 The U-value is found from : $U = Q / (0.6 \cdot DT) \cdot L_{wal} \cdot U_{wal} \cdot L_{teor} U_{floor}$ The folded lintel is 3mm steel with conductivity 50 W/mK. The total height is 260mm and the angle of slope is 30°. The perforated base plate of the lintel is 3mm thick with conductivity 10 W/mK.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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				For DriTherm	n® Cavity Sla	ıb 34	
		100	nm cavity	125r	nm cavity	150r	nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.151	0.928	0.157	0.928	0.161	0.928
Standard aircrete	0.15	0.149	0.929	0.156	0.929	0.161	0.929
Lightweight aggregate	0.50	0.146	0.935	0.154	0.934	0.160	0.933

Table Ref: E24.2a

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

400mm Loft Roll 44 is tightly butted to the wall

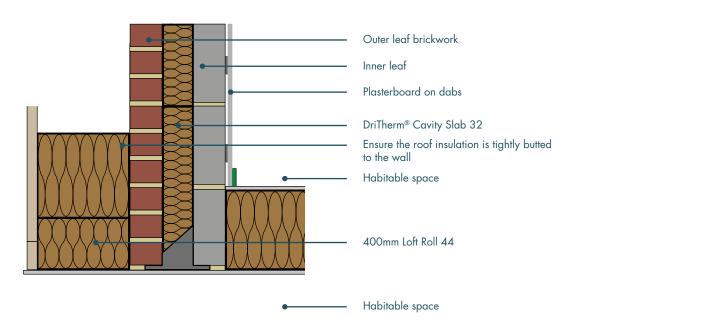
Site name:	
Plot number:	
Date:	



Junction reference:

E24.2 - Eaves insulation at ceiling inverted: Bay window steel lintel

Ref:	KI_PSI_E24.2_DT32_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		



Model of detail E24.2 The model is 0.6m deep with a cross section of the floor shown in 24.1 The U-value is found from : $U = Q / (0.6 \cdot DT) \cdot L_{wal} \cdot U_{wal} \cdot L_{hoor} U_{floor}$ The folded lintel is 3mm steel with conductivity 50 W/mK. The total height is 260mm and the angle of slope is 30°. The perforated base plate of the lintel is 3mm thick with conductivity 10 W/mK.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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	Thermal Conductivity (W/mK)	For DriTherm® Cavity Slab 32						
		100r	nm cavity	125r	nm cavity	150r	nm cavity	
Block		ψ-value	f-value	ψ-value	f-value	ψ-value	f-value	
High performance aircrete	0.11	0.152	0.928	0.157	0.928	0.163	0.928	
Standard aircrete	0.15	0.150	0.929	0.157	0.929	0.162	0.929	
Lightweight aggregate	0.50	0.148	0.935	0.155	0.934	0.161	0.933	

Table Ref: E24.2b

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

400mm Loft Roll 44 is tightly butted to the wall

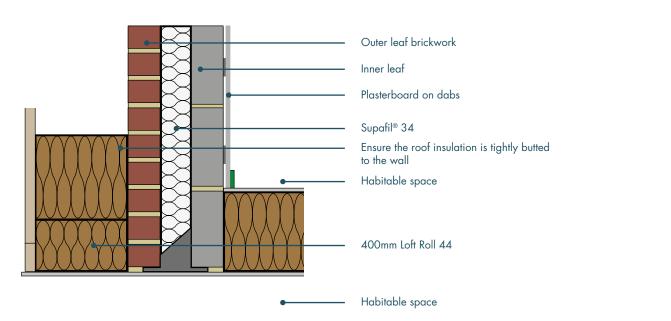
Site name:	
Plot number:	
Date:	



Junction reference:

E24.2 - Eaves insulation at ceiling inverted: Bay window steel lintel

Ref:	KI_PSI_E24.2_SF34_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		



Model of detail E24.2 The model is 0.6m deep with a cross section of the floor shown in 24.1 The U-value is found from : $U = Q / (0.6 \cdot DT) \cdot L_{wal} \cdot U_{wal} \cdot L_{hoor} U_{hoor}$ The folded lintel is 3mm steel with conductivity 50 W/mK. The total height is 260mm and the angle of slope is 30°. The perforated base plate of the lintel is 3mm thick with conductivity 10 W/mK.

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		For Supafil® 34					
		100	nm cavity	125r	nm cavity	150r	nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.151	0.928	0.157	0.928	0.161	0.928
Standard aircrete	0.15	0.149	0.929	0.156	0.929	0.161	0.929
Lightweight aggregate	0.50	0.146	0.935	0.154	0.934	0.160	0.933

Table Ref: E24.2a

On-site checklist

Supafil® 34 installed in cavity

400mm Loft Roll 44 is tightly butted to the wall

Site name:	
Plot number:	
Date:	





Junction reference:

E25 - Staggered separating wall between dwellings

Ref:	KI_PSI_E25b_DT34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		 Outer leaf brickwork Ensure that the cavity insulation is continuous throughout the junction DriTherm® Cavity Slab 34 Cavity barrier Ensure that the cavity insulation is continuous throughout the junction Plasterboard on dabs 100mm Masonry Party Wall Slab Inner leaf blockwork

The length of the wall for the y-value calculation = La + Lb + Lc

The width of the insulation in the party wall remains at 100mm as the insulation layer in the external wall increases from 100 to 125 and 150.

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				For DriTherm = 0.50 W/mK, Pa			ll Slab
		100r	nm cavity	125r	nm cavity	150r	nm cavity
Block	Thermal Conductivity (W/ mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.056	0.456	0.049	0.461	0.039	0.465
Standard aircrete	0.15	0.060	0.455	0.052	0.460	0.042	0.464
High strength aircrete	0.19	0.063	0.454	0.054	0.460	0.043	0.464
Ultra lightweight aggregate	0.31	0.068	0.454	0.059	0.460	0.047	0.465
Lightweight aggregate	0.50	0.072	0.456	0.062	0.462	0.049	0.467

Table Ref: E25a2

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Cavity insulation is continuous throughout the junction

Site name:	
Plot number:	
Date:	



Junction reference:

E25 - Staggered separating wall between dwellings

Ref:	KI_PSI_E25b_DT32_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
	0-	— Outer leaf brickwork
		 Ensure that the cavity insulation is continuous throughout the junction
		— DriTherm® Cavity Slab 32
		— Cavity barrier
		 Ensure that the cavity insulation is continuous throughout the junction
I		 Plasterboard on dabs
		— 100mm Masonry Party Wall Slab

Inner leaf blockwork

The length of the wall for the y-value calculation = La + Lb + Lc The width of the insulation in the party wall remains at 100mm as the insulation layer in the external wall increases from 100 to 125 and 150.

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				For DriTherm = 0.50 W/mK, Pa		ib 32 ■ Masonry Party Wa	II Slab
		100	nm cavity	125r	nm cavity	150r	nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.051	0.458	0.045	0.462	0.036	0.466
Standard aircrete	0.15	0.054	0.456	0.048	0.462	0.038	0.466
High strength aircrete	0.19	0.057	0.456	0.050	0.461	0.040	0.466
Ultra light weight aggregate	0.31	0.062	0.456	0.053	0.462	0.042	0.467
Lightweight aggregate	0.50	0.065	0.458	0.056	0.464	0.044	0.468

Table Ref: E25a3

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

DriTherm[®] Cavity Slab 32 installed in cavity

Cavity insulation is continuous throughout the junction

Site name:	
Plot number:	
Date:	



Junction reference:

E25 - Staggered separating wall between dwellings

Ref:	KI_PSI_E25b_SF34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
	o	— Outer leaf brickwork
		 Ensure that the cavity insulation is continuous throughout the junction
		— Supafil® 34
		- Cavity barrier
		 Ensure that the cavity insulation is continuous throughout the junction
		 Plasterboard on dabs
		— 100mm Supafil® Party Wall

Inner leaf blockwork

The length of the wall for the y-value calculation = La + Lb + LcThe width of the insulation in the party wall remains at 100mm as the insulation layer in the external wall increases from 100 to 125 and 150.

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			Party wall block	For S k = 0.50 W/mK,	upafil® 34 Party wall insulatior	n = Supafil® Party V	Vall
		100r	nm cavity	125	nm cavity	150n	nm cavity
Block	Thermal Conductivity (W/ mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.056	0.456	0.049	0.461	0.039	0.465
Standard aircrete	0.15	0.060	0.455	0.052	0.460	0.042	0.464
High strength aircrete	0.19	0.063	0.454	0.054	0.460	0.043	0.464
Ultra lightweight aggregate	0.31	0.068	0.454	0.059	0.460	0.047	0.465
Lightweight aggregate	0.50	0.072	0.456	0.062	0.462	0.049	0.467

Table Ref: E25a2

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

Supafil® 34 installed in cavity

Cavity insulation is continuous throughout the junction

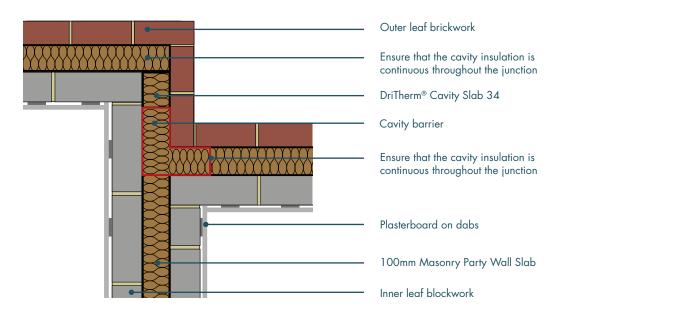
Site name:	
Plot number:	
Date:	



Junction reference:

E25 - Staggered separating wall between dwellings

Ref:	KI_PSI_E25a_DT34_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		



The length of the wall for the y-value calculation = La + Lb + Lc The width of the insulation in the party wall remains at 100mm as the insulation layer in the external wall increases from 100 to 125 and 150.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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				For DriTherm = 0.15 W/mK, Pa			ll Slab
		100	nm cavity	125r	nm cavity	150r	nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.055	0.456	0.048	0.461	0.039	0.465
Standard aircrete	0.15	0.059	0.455	0.052	0.460	0.041	0.464
High strength aircrete	0.19	0.062	0.454	0.054	0.460	0.043	0.464
Ultra light weight aggregate	0.31	0.067	0.454	0.058	0.460	0.046	0.465
Lightweight aggregate	0.50	0.071	0.456	0.061	0.462	0.048	0.467

Table Ref: E25a1

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

DriTherm[®] Cavity Slab 34 installed in cavity

Cavity insulation is continuous throughout the junction

Site name:	
Plot number:	
Date:	



Junction reference:

E25 - Staggered separating wall between dwellings

Ref:	KI_PSI_E25a_SF34_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
	•	— Outer leaf brickwork
		 Ensure that the cavity insulation is continuous throughout the junction
		— Supafil® 34
		- Cavity barrier
		 Ensure that the cavity insulation is continuous throughout the junction
		- Plasterboard on dabs
		— 100mm Masonry Party Wall Slab
		- Inner leaf blockwork

The length of the wall for the y-value calculation = La + Lb + Lc The width of the insulation in the party wall remains at 100mm as the insulation layer in the external wall increases from 100 to 125 and 150.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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			Party wall block	For S k = 0.15 W/mK,	upafil® 34 Party wall insulation	n = Supafil® Party \	Vall
		100	nm cavity	125r	nm cavity	150r	nm cavity
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	ψ-value	f-value	ψ-value	f-value
High performance aircrete	0.11	0.055	0.456	0.048	0.461	0.039	0.465
Standard aircrete	0.15	0.059	0.455	0.052	0.460	0.041	0.464
High strength aircrete	0.19	0.062	0.454	0.054	0.460	0.043	0.464
Ultra lightweight aggregate	0.31	0.067	0.454	0.058	0.460	0.046	0.465
Lightweight aggregate	0.50	0.071	0.456	0.061	0.462	0.048	0.467

Table Ref: E25a1

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

Supafil® 34 installed in cavity

Cavity insulation is continuous throughout the junction

Site name:	
Plot number:	
Date:	



Junction reference:

P4 - Separating wall and roof with insulation at ceiling level

Ref:	KI_PSI_P4_SFPW_0001	Dated: May 2021
Issued by:	Knauf Insulation Ltd	
		 Ensure that the cavity insulation extends at least 200mm above the top of the loft insulation 400mm Loft Roll 44 Fill the space between the separating wall and last joist with insulation
		── 100mm Supafil® Party Wall

TRISCO model of detail P4 The model is 1m deep. The U-value is found from : U = Q / (DT) - ($I_{ceiling}$ 1 + $L_{ceiling}$ 2): $U_{ceiling}$ Half the U-values in the table below are assigned to each dwelling on either side of the wall.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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		Supafil® Party Wall		
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	
Standard aircrete	0.15	0.035	0.476	
Lightweight aggregate	0.50	0.090	0.444	

Table Ref: P4

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

Supafil[®] Party Wall installed in party wall cavity

Space between the separating wall and last joist filled with insulation

Cavity insulation extends at least 200mm above the top of the loft insulation

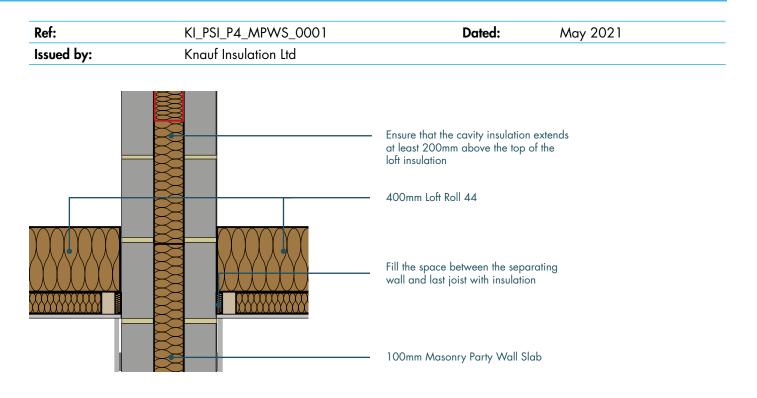
Site manager/supervisor:	
Site name:	
Plot number:	
Date:	





Junction reference:

P4 - Separating wall and roof with insulation at ceiling level



TRISCO model of detail P4 The model is 1m deep. The U-value is found from : U = Q / (DT) $- (I_{ceiling}1 + I_{ceiling}2) \cdot U_{ceiling}$ Half the U-values in the table below are assigned to each dwelling on either side of the wall.

Calculations completed using methodology outlined in BS EN ISO 10211: 2007, and in accordance with BR 497: Conventions for calculating linear thermal transmittance and temperature factors (2nd edition). Knauf Insulation is constantly seeking ways to improve its products and services. Whilst every effort is made to ensure the accuracy of the above calculation, please note that the specifications, design and production of products are subject to change. The calculation provided is a recommendation only and Knauf Insulation does not give any warranty or representation whatsoever in connection with or assume liability for the accuracy, timeliness, reliability or completeness of the calculation. The calculation is based on the information provided to Knauf Insulation and Knauf Insulation accepts no liability for errors or omissions in the input data or errors resulting from any inaccuracy of input data. In no event shall Knauf Insulation be liable for any losses or damages arising out of or in connection with use of the calculation.

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		Masonry Party Wall Slab		
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	
Standard aircrete	0.15	0.034	0.476	
Lightweight aggregate	0.50	0.090	0.428	

Table Ref: P4

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

Masonry Party Wall Slab installed in party wall cavity

Space between the separating wall and last joist filled with insulation

Cavity insulation extends at least 200mm above the top of the loft insulation

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	





Junction reference: P5 - Separating wall and roof at rafter level

Ref:	KI_PSI_P5_SFPW_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		

180mm OmniFit® Slab 35 Proprietary fire stop to have maximum thermal conductivity of 0.044W/mK Fill the space between the separating wall and last rafter with insulation Thermal laminate with 40.5mm thermal conductivity of 0.022W/mK + 12.5mm plasterboard
Blockwork 100mm Supafil® Party Wall Plasterboard on dabs

TRISCO model of detail P4 The model is 1m deep. The U-value is found from : U = Q / (DT) $- (I_{ceiling}1 + I_{ceiling}2) \cdot U_{ceiling}$ Half the U-values in the table below are assigned to each dwelling on either side of the wall.

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		Supafil® Party Wall		
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	
Standard aircrete	0.15	0.043	0.472	
Lightweight aggregate	0.50	0.055	0.474	

Table Ref: P5

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

Supafil[®] Party Wall installed in party wall cavity

Space between the separating wall and last joist filled with OmniFit® Slab 35

Proprietary fire stop max 0.044W/mK

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	



Junction reference: P5 - Separating wall and roof at rafter level

Ref:	KI_PSI_P5_MPWS_0001	Dated:	May 2021
Issued by:	Knauf Insulation Ltd		

180mm OmniFit® Slab 35 Proprietary fire stop to have maximum thermal conductivity of 0.044W/mK Fill the space between the separating wall and last rafter with insulation Thermal laminate with 40.5mm thermal conductivity of
0.022W/mK + 12.5mm plasterboard Blockwork 100mm Masonry Party Wall Slab Plasterboard on dabs

TRISCO model of detail P4 The model is 1m deep. The U-value is found from : U = Q / (DT) $- (I_{ceiling}1 + I_{ceiling}2) \cdot U_{ceiling}$ Half the U-values in the table below are assigned to each dwelling on either side of the wall.

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		Masonry Party Wall Slab		
Block	Thermal Conductivity (W/mK)	ψ-value	f-value	
Standard aircrete	0.15	0.042	0.472	
Lightweight aggregate	0.50	0.055	0.474	

Table Ref: P5

 $^{*}\psi$ -values shown above are applicable to each dwelling on either side of the party wall.

On-site checklist

Masonry Party Wall Slab installed in party wall cavity

Space between the separating wall and last joist filled with OmniFit® Slab 35

Proprietary fire stop max 0.044W/mK

Site manager/supervisor:	
Site name:	
Plot number:	
Date:	





CONTACTS

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