



### Cavity Wall Full-Fill Insulation

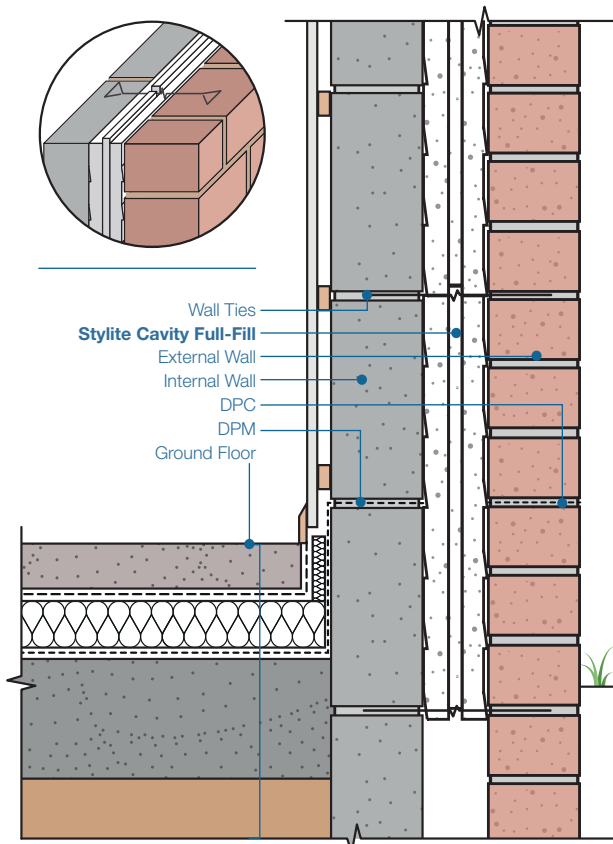
- Lambda from 0.030 W/mK
- Tongue & Groove Profiled edges
- Reduces cold bridging
- Lightweight
- Minimises water penetration
- Quick & easy installation
- Use in commercial & residential property
- Water proof but breathable
- 100% recyclable
- No HFC's, CFC's or HCFC's



**Stylite Full Fill Cavity Wall Insulation** is designed to be incorporated into the entire cavity of a new build masonry wall. The boards are designed to minimise any water penetration while providing high-performance thermal insulation to the wall build up. Stylite EPS is an ideal cavity

wall insulation material due to its natural hydrophobic properties. The adept design of this cavity insulation board further shields the internal structure from any penetrating water. **For more information on Stylite EPS call us now on 01274 691 777 or visit our website at [www.styrene.biz](http://www.styrene.biz)**

#### Typical Stylite Cavity Full-Fill build up



#### Compatibility

Expanded Polystyrene is compatible with most chemicals and materials. For more information about how EPS interacts with different chemicals check [www.styrene.biz/downloads/SPI\\_Chemical\\_Behaviour.pdf](http://www.styrene.biz/downloads/SPI_Chemical_Behaviour.pdf)

#### Durability

EPS is rot proof and durable, and will remain an effective insulation for the life of the construction. EPS is not affected by bacteria, moulds or fungi, and will not provide nutrient value for insects or vermin.

#### Environmental Safety

It is non-toxic, non-irritant, odourless and It does not contain CFC's or HCFC's. EPS has a Global Warming Potential (GWP) of zero and an Ozone Depletion Potential (ODP) of zero.

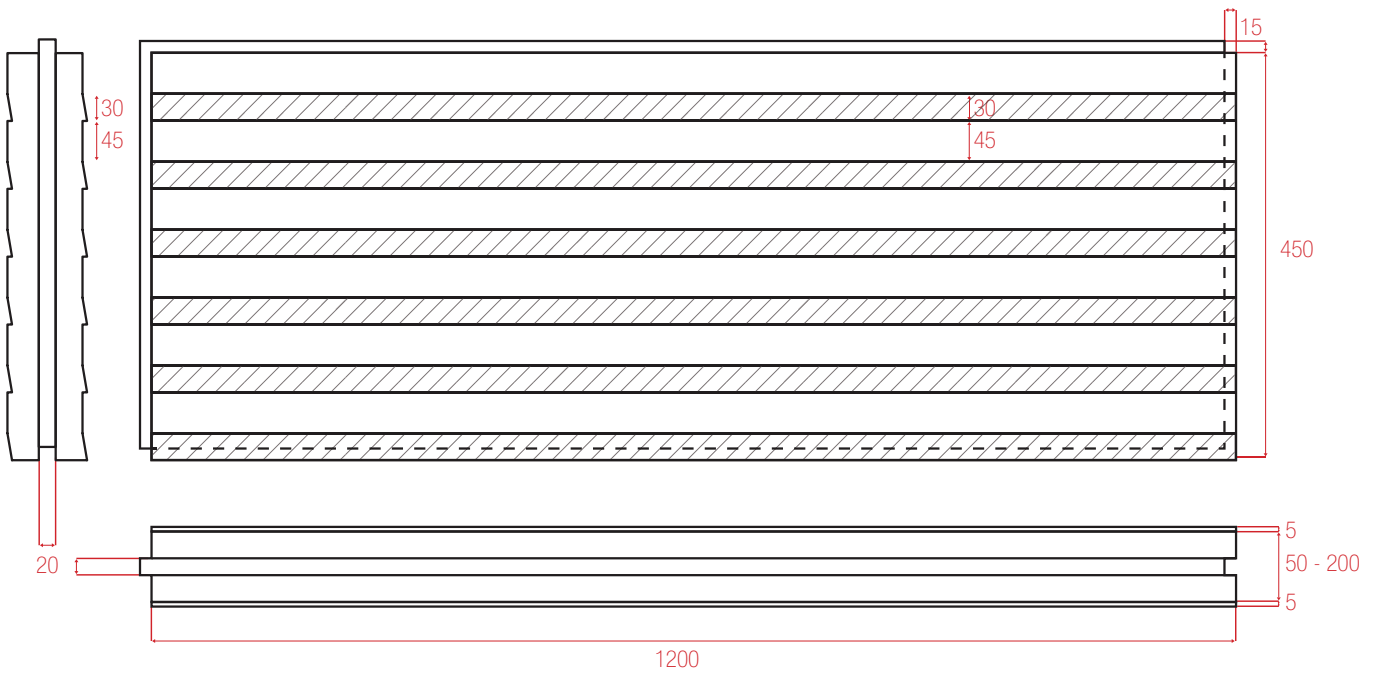
#### Reaction To Fire Classification

Stylite will achieve reaction to fire Euro-class F. However, the classification achieved when installed in a build will be considerably better. We also supply an FRA grade which contains a Fire retardant additive and achieves reaction to fire Euro-class E. The fire rating of a wall containing EPS will depend heavily on the type and nature of the build up.

## Stylite Full-Fill Cavity Boards Design & Dimensions

**Stylite Full-Fill Cavity Boards** are specially designed to provide thermal insulation while protecting the inner wall structure from moisture. Unlike moulded cavity boards SPI can contour cut the product significantly reducing the price. The boards are profiled with a tongue and groove edge to

complete a fully interlocking cavity insulation with joints that protect against the ingress of any moisture. The face of the board is designed with ridges that will shed any water that does penetrate the external leaf, directing it away from the board face and back to the outside via DPC and weep vents.

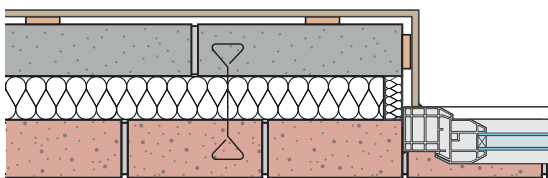


## Stylite Full-Fill Cavity Boards Standard Details

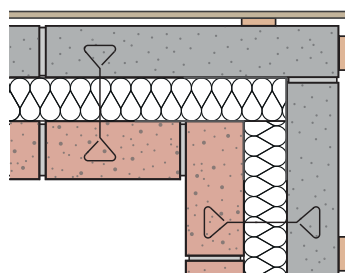
Below are a set of details that are typically used when using full fill cavity insulation boards. The use of cavity closer units is required to close the cavity and head to prevent

cold bridging at the end of external walls. The full fill cavity boards should be butted at corners ensuring full coverage of the cavity.

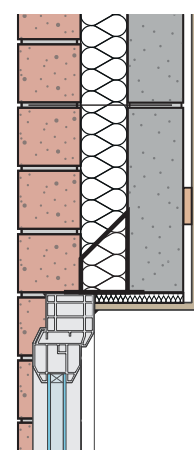
### Cavity Closers



### Cavity Corners



### Cavity Lintels



## Stylite Full-Fill Cavity Wall Insulation Typical U-Values

The following table demonstrates typical U-Values achieved on specific wall build ups. To ensure correct U-values the thickness of the cavity insulation boards have been calculated to the minimum widths of the ridges. The following U-Value calculations are produced in accordance with the “conventions for U-Value calculations”. To

ensure the validity of your calculations, each U-Value should be generated according to [BS EN ISO 6946](#) , [BS EN 1996-3 : 2006](#).

**For a specific U-Value calculation or pricing information on stylite Full Fill Cavity Insulation contact our technical and sales teams on 01274 691 777.**

### Stylite Full-Fill Cavity Insulation - Brickwork

Internal Finish	Lightweight Block	Dense Block
W/mK <sup>2</sup> / Thickness	Plustherm	
0.15	150	170
0.18	115	140
0.21	95	120
0.28	60	80
0.30	50	75

Calculations based on values of : (Dense Concrete Block : 1.06\*), (Clay Brickwork : 0.77\*), ((AAC) Block : 0.17\*), ((SAAC) Block : 0.11\*), (Plasterboard : 0.21), (Gypsum Render : 0.8\*), (Gypsum based plaster : 0.18\*). \*W/mK

## Technical Specification

Features	EPS 70	Plustherm	Standard
Thermal Conductivity ( $\lambda_{90/90}$ )(Wm <sup>-1</sup> K <sup>-1</sup> )	0.038	0.030	EN 13163
Length Tolerance	L1	L1	EN 822
Width Tolerance	W1	W1	EN 822
Thickness Tolerance	T1	T1	EN 823
Planarity Tolerance	P2	P2	EN 825
Squareness	S1	S1	EN 824
Bending Strength (kPa)	BS115	BS150	EN 12089
Reaction to Fire	F	E	EN 13501-1
Water Vapor Permeability (mg/ Pa.h.m)	0.015 - 0.030	0.009 - 0.020	EN 13163
Water Vapour Diffusion Resistance Factor $\mu$	20-40	30-70	EN 13163
Dimensional Stability	DS (N) 5	DS (N) 5	EN 1603
Compressive Stress @ 10% (kPa)	70	100	EN 826
Compressive Stress @ 1 % (kPa)	21	30	EN 13163
Tensile Strength (kPa)	TR100	TR150	EN 1607
BREEAM Rating	A+	A+	BRE

Typical Dimensions	Length mm	Width mm	Depth mm
Stylite Cavity Full-Fill	1200	450	50 > 200

EN 13163 : 2012 | BS EN 13501 : 1 : 2007 | BS EN 6946

Uniclass Code  
Pr\_25\_71\_63\_26

## Recycling

Styrene Packaging & Insulation Ltd provide a scrap EPS pick-up to help us recycle as much polystyrene as possible back into suitable products, please download a copy of our recycling policy to find out how to get involved.

## Certification

SPI have real pride in the products we supply. We surpass all current regulations and independent certification that ensures a quality product. For full details of our certifications please visit our website at [www.styrene.biz](http://www.styrene.biz)

## NBS Specification

This product is associated with the following NBS clauses:  
**F30 Accessories/ sundry items for brick/ block/ stone walling**  
**- 150 FULL FILL CAVITY INSULATION**

## NBS Create

This product is associated with the following NBS clauses:  
**45-45-65/380 Expanded polystyrene (EPS) board**



Visit product webpage

