

# BEWI External Wall Insulation (EWI)

## Technical Datasheet

BEWI EWI is manufactured from expanded polystyrene (EPS) and can be bonded and/or mechanically fixed to an external wall.

It can be used in conjunction with a variety of render and cladding systems including timber or plastic weatherboarding, tile hanging and reinforced-render systems.

### Key Benefits

- Available in a range of Lambda values
- 100% recyclable
- Off-cut collection
- Achieves an A+ rating in the BRE Green
- Guide to Specification
- Lightweight and easy to handle
- Flood resilient and durable
- Can be cut to fit with a sharp knife
- Helps to achieve a high quality rendered surface
- Insulates for the lifetime of the building
- Reaction to Fire Class E

### Dimensions:

Standard size: 1200mm x 600mm  
Standard thickness: From 20mm – 200mm

### Type:

BEWI EWI is supplied as EPS 70E and EPS HP+70 E (grey) as defined in BS EN 13163.

All our EWI contain a flame retardant additive to achieve Reaction to Fire Class E.

BEWI EWI for use with a rendered finish should be "aged" material.

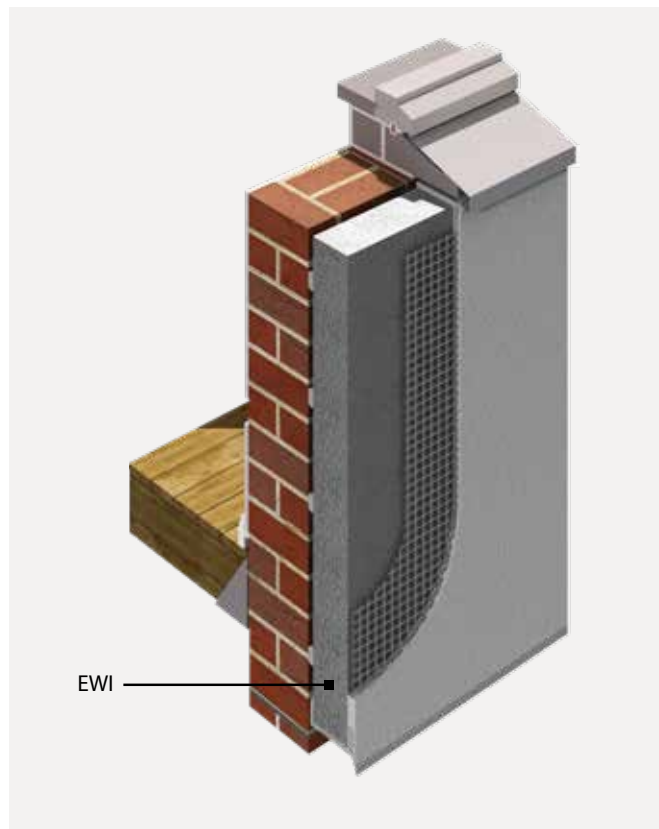
### Easy to install

BEWI EWI is manufactured from expanded polystyrene (EPS) which is lightweight and easy to handle.

BEWI EWI is a component in an external wall insulation system and installation is to be completed by an approved installer. Installation of EWI systems must meet the requirements of the Building Regulations and any other applicable regulatory requirements.

### Environment

EPS has been awarded an A+ rating by the BRE's Green Guide to specification.



### Permanent

BEWI EWI is rot-proof and durable and will remain effective for the life of the building; recommended fixing methods will retain the boards permanently in position.

It also has the added advantage of being flood resilient.

### Fire

Any necessary fire performance should be provided by the facing material and the system design.

Refer to the national Building Regulations for types of buildings and any product restrictions / exclusions that may apply prior to use and or inclusion in any specification.

### Water vapour transmission

BEWI EWI offers significant resistance to the passage of water vapour, but should not be regarded as a vapour-control layer.

Condensation calculations covering typical environmental conditions show that the dew point of an external-wall insulation system will occur on the external face of the insulation. This is the ideal situation.

For more information:

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### Thermal Resistance (R-Values)

Board Thickness	EPS 70E white (thermal conductivity of 0.038 W/mK)	EPS HP +70E grey (thermal conductivity of 0.030 W/mK)
40mm	1.05m <sup>2</sup> K/W	1.30m <sup>2</sup> K/W
50mm	1.30m <sup>2</sup> K/W	1.65m <sup>2</sup> K/W
60mm	1.55m <sup>2</sup> K/W	2.00m <sup>2</sup> K/W
75mm	1.95m <sup>2</sup> K/W	2.50m <sup>2</sup> K/W
80mm	2.10m <sup>2</sup> K/W	2.65m <sup>2</sup> K/W
90mm	2.35m <sup>2</sup> K/W	3.00m <sup>2</sup> K/W
100mm	2.60m <sup>2</sup> K/W	3.30m <sup>2</sup> K/W
110mm	2.85m <sup>2</sup> K/W	3.65m <sup>2</sup> K/W
120mm	3.15m <sup>2</sup> K/W	4.00m <sup>2</sup> K/W
130mm	3.40m <sup>2</sup> K/W	4.30m <sup>2</sup> K/W
150mm	3.95m <sup>2</sup> K/W	5.00m <sup>2</sup> K/W

### Accessory Products – BEWI Basetherm

BEWI Basetherm is a high performance insulation board that is designed specifically to insulate the plinth below the damp-proof course and provide an impact proof base board. It is made of expanded polystyrene which maintains the thermal performance of the insulation even in a damp environment and can be used in conjunction with BEWI external wall insulation.

#### Dimensions:

Standards size: 1200mm x 1200mm  
Standard Thicknesses: 50mm or 100mm

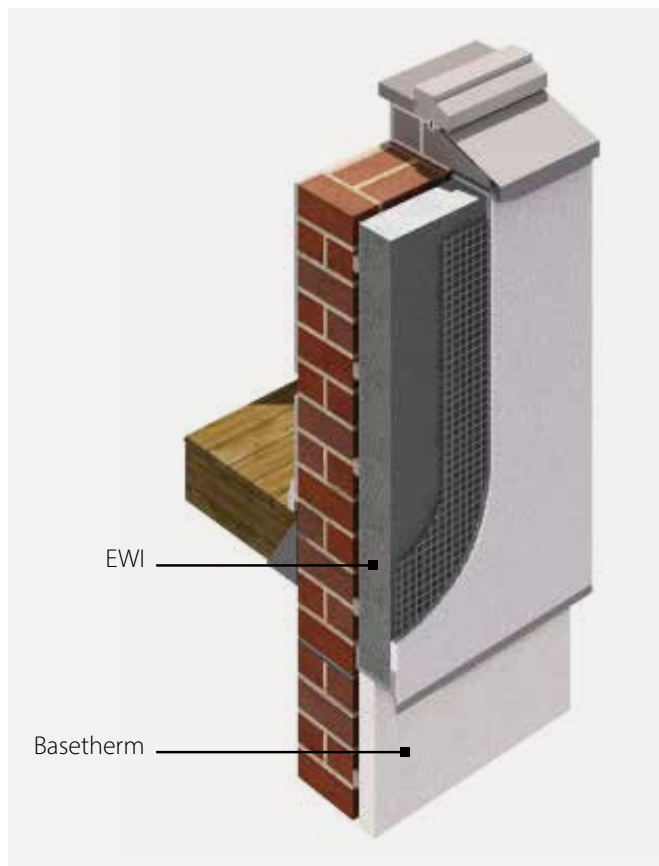
#### Key properties:

200 Grade – High density EPS  
Compressive strength – 200kPa @10% strain  
Tensile Strength – minimum 100kPa  
Flatness – 3mm  
Reaction to Fire – Class E

#### Test to prove performance:

Compressive strength at 10% deformation (kPa) BS EN 13163  
Tensile Strength BS EN 1607  
Fire Classification BS EN 13501-1

Refer to the national Building Regulations for types of buildings and any product restrictions / exclusions that may apply prior to use and or inclusion in any specification.



Disclaimer: Every effort has been made to ensure the correctness of the information provided in this data sheet and is based on data and knowledge accurate at the time of production. It is designed for experienced professionals in the building and construction industry and does not offer a complete overview of industry practices. Therefore, this cannot guarantee the performance results, as usage and installation conditions are outside our control. If you have any questions regarding the suitability of the application, please contact us.

For more information:

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