EPS EWI Insulation Boards

Expanded polystyrene insulation boards for Licata external wall insulation systems, in white (EPS 70E) and graphite grey (EPS HP+70E) grades, with a high density EPS plinth board for below damp-proof course.

EPS 70E WHITE | EPS HP+70E GREY | BS EN 13163

Description

Closed-cell expanded polystyrene (EPS) boards manufactured to BS EN 13163, for bonding and/or mechanically fixing to external walls as the insulation layer in a Licata EWI system. The boards are used with Licata reinforced render systems and can also form the insulation layer behind timber or plastic weatherboarding and tile hanging.

Two grades are available: **EPS 70E** (white) and **EPS HP+70E** (grey, graphite-enhanced for a lower thermal conductivity). Both contain a flame retardant additive. Boards for use under a rendered finish should be aged material.

Key properties

- Two thermal conductivity grades: 0.038 W/mK and 0.030 W/mK
- Lightweight and easy to handle on site
- Cut to fit with a sharp knife
- Gives a flat, stable base for a high quality rendered finish
- Rot-proof and durable: effective for the life of the building
- Flood resilient
- 100% recyclable
- EPS holds an A+ rating in the BRE Green Guide to Specification
- Reaction to fire Class E (BS EN 13501-1)
- Recommended fixing methods hold the boards permanently in position

Product information	
Grades	EPS 70E (white) and EPS HP+70E (grey), as defined in BS EN 13163
Thermal conductivity (λ)	EPS 70E: 0.038 W/mK EPS HP+70E: 0.030 W/mK
Reaction to fire	Class E
Standard size	1200 x 600 mm
Standard thickness	20 mm to 200 mm
Fixing	Bonded with Licata adhesive and/or mechanically fixed

Fire

EPS is a combustible insulation with a Class E reaction to fire. The fire performance of the wall is provided by the facing material and the design of the system as a whole. Before specifying, refer to the Building Regulations for the building type concerned and for any product restrictions or exclusions that may apply before use or inclusion in a specification. The Licata technical team can advise on the appropriate system for the building.

Environment

EPS is 100% recyclable and holds an A+ rating in the BRE Green Guide to Specification.

Thermal resistance (R-values)

Declared thermal resistance by board thickness for each grade.

Board thickness	EPS 70E white λ 0.038 W/mK	EPS HP+70E grey λ 0.030 W/mK
40 mm	1.05 m²K/W	1.30 m²K/W
50 mm	1.30 m²K/W	1.65 m²K/W
60 mm	1.55 m²K/W	2.00 m²K/W
75 mm	1.95 m²K/W	2.50 m²K/W
80 mm	2.10 m²K/W	2.65 m²K/W
90 mm	2.35 m²K/W	3.00 m²K/W
100 mm	2.60 m²K/W	3.30 m²K/W
110 mm	2.85 m²K/W	3.65 m²K/W
120 mm	3.15 m²K/W	4.00 m²K/W
130 mm	3.40 m²K/W	4.30 m²K/W
150 mm	3.95 m²K/W	5.00 m²K/W

EPS Plinth Board (200 grade)

A high density EPS board for insulating the plinth zone below the damp-proof course, where the insulation must withstand ground contact, damp and accidental impact. It keeps its thermal performance in a damp environment and provides an impact-resistant base to the EWI system above.

Product information	
Grade	EPS 200, high density
Standard size	1200 x 1200 mm
Standard thickness	50 mm or 100 mm
Compressive strength at 10% strain	200 kPa (BS EN 13163)
Tensile strength	Minimum 100 kPa (BS EN 1607)
Flatness	3 mm
Reaction to fire	Class E (BS EN 13501-1)

Water vapour

EPS offers significant resistance to the passage of water vapour but is not a vapour control layer and should not be relied on as one. Condensation calculations under typical UK conditions show the dew point of an external wall insulation system falling on the external face of the insulation, which is the intended position.

Installation

The boards are one component of a Licata external wall insulation system and are to be installed by an approved installer in accordance with the Licata system specification. The installation must meet the requirements of the Building Regulations and any other applicable regulations.

> **Notes**
> The information in this data sheet reflects our current knowledge and is given in good faith. It is intended for experienced professionals in the construction industry and does not provide a complete overview of industry practice. It is the responsibility of the specifier and installer to confirm that the product is suitable for the intended application and to follow the relevant Licata system specification and installation guidance. Licata reserves the right to change product specifications without notice. For project-specific advice, U-value calculations, fixing calculations and system certificates, contact the Licata technical team.