

## Technical Datasheet

### *Roofshield EPS Insulated Board*

Springvale Roofshield, Roofshield V and Roofshield S are expanded polystyrene (EPS) boards (V & S types are factory bonded to perlite) for use on limited access flat roofs with suitably designed timber, concrete and metal structural decks in conjunction with a suitable fully supported waterproofing system.

The products are supplied as either laminated or non-laminated insulation boards to receive a variety of waterproofing layers, in grades EPS100E, EPS150E and EPS200E, to meet a range of compressive strength requirements and have a Reaction to Fire Classification of Class E.

## Sustainability

Springvale advocate responsibility to the environment as part of their Environmental policies and Environmental Managements System to BS EN ISO 14001 and as members of the British Plastics Federation (BPF), participates in the recycling post-construction EPS scheme.

## Expanded Polystyrene (EPS)

Expanded polystyrene (EPS) is an excellent choice for use as insulation and other applications, consisting of 98% air means only 2% of any product is polystyrene material.

With its outstanding thermal insulation qualities EPS is a first choice material for numerous construction applications. Using EPS can reduce CO<sub>2</sub> emissions by up to 50%, offsetting its small carbon footprint and giving maximum return for minimal resource and can also make a significant contribution to reducing fossil fuel use for heating and cooling of buildings which in turn, helps reduce SO<sub>2</sub> and SO<sub>3</sub> emissions, a major cause of acid rain.

Using less than 0.1% of global oil consumption to manufacture EPS, it can save up to 200 times its own resource in thermal energy saving, bringing



considerable energy and resource-saving benefits.

The amount of carbon monoxide and particulates given off by EPS during combustion is a small fraction of that emitted by wood or cardboard.

The manufacture of EPS is safe for the environment as only steam is used during the manufacture process. There is no waste in the process as all off-cuts are re-cycled back into the production process.

EPS uses Pentane as its blowing agent and is HFC, CFC and HCFC free. Pentane has a low Global Warming Potential (GWP) of less than five and the EU does not register pentane as a substance hazardous to human health or the environment.

The lightweight nature of EPS helps to minimise environmental impacts and costs associated with the movement of heavier alternative materials.

The inert and non-toxic nature of EPS provides stability in landfill because it does not biodegrade and leach chemicals into the water system or gases into air that could contribute to global warming.

Life-cycle analyses demonstrate that EPS has exceptional qualities as a construction material. It has a Zero Ozone Depletion Potential (ODP) and a low Global Warming Potential (GWP) and achieves the highest possible A-Plus summary rating in the BRE Global Green Guide to Specification.



## Highly Durable

A durable, inert, non-toxic, rot proof and 100% recyclable product, the performance of EPS is expected to last at least the life time of the building in which it is used.

## Excellent Thermal Performance

Roofshield EPS200E grade can achieve U Values as low as 0.13 W/m<sup>2</sup>K depending on the roof layout.

Contact our Technical department for further information.

Email - [technical@springvale.com](mailto:technical@springvale.com)

## Freedom of Design

The units are available in uniform thickness or tapered boards, manufactured and supplied to suit the roof design layout.



# Technical Data

Grade (BS EN 13163)	EPS100E	EPS150E	EPS200E
Thermal conductivity (W/m·K)	0.035	0.034	0.033
Compressive strength 10% deformation (kPa)	100	150	200
Reaction to fire (mm)	Class E	Class E	Class E
Board size (mm)	1200 x 600 mm		
Thickness (mm)	From 20mm upwards designed to achieve the U Value required		

## Certification

Springvale Roofshield, Roofshield V and Roofshield S have a third party BBA accreditation certificate 08/4529 Product Sheet 1 and are manufactured to the requirements of BS EN 13163, under an ISO 9001 certified quality management system.

[www.springvale.co.uk/downloads](http://www.springvale.co.uk/downloads)

## Quick & Easy Installation

The products are designed to be installed by a general competent builder, or contractor, experienced with these types of products, in accordance with the BBA certificate.

Roofshield EPS should not come in direct contact with hot water pipes and electrical cables should be enclosed in suitable conduit e.g. rigid PVC.

## Handling & Storage

The products must be stored flat, off the ground, on a clean level surface, protected prolonged exposure to sunlight, either under cover or with opaque, light-coloured polythene. The products must not be exposed to open flame or other ignition sources. Care must be taken to avoid contact with solvents and materials containing organic components.

## Want to know more?

Contact Technical or Sales for more information.

Phone - **01457 863 211** or Email - [technical@springvale.com](mailto:technical@springvale.com)

