

Technical Data Sheet

HYDROSHIELD® EPS Inverted Roof Insulation

Springvale Hydroshield for Inverted Roof Insulation uses expanded polystyrene (EPS) boards, a water reducing layer and ballast or paving protection for use as inverted roof insulation on new and existing domestic and non-domestic untrafficked flat and zero fall roofs and terraced roofs subject to pedestrian access only.

The products are available in both uniform thickness and tapered board options and may be used with zero pitch and slopes between 1:80 and 1:6. When used in conjunction with a suitable root barrier Hydroshield EPS300E may only be used in green roof applications.

The products are supplied in 2 grades, EPS 200E and EPS 300E 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 Management 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 CO₂ 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 SO₂ and SO₃ 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.

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

EPS is recyclable but where this is not possible 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

Hydroshield can achieve U Values as low as 0.13 W/m²K depending on the roof layout.

Freedom of Design

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

Technical Data

	WHITE	WHITE
Grade (BS EN 13163)	EPS200E	EPS300E
Thermal Conductivity Insulation thickness 50-79mm (W/mK)	0.041	0.041
Thermal Conductivity Insulation thickness 80-350mm (W/mK)	0.038	0.038
Compressive Strength At 10% deformation (kPa)	200	300
Reaction to Fire	Class E	Class E
Typical Work Board Size (mm)	1200 x 590 mm	
Typical Overall Board Size (mm)	1200 x 610 mm	
Thickness (mm)	50mm to 350mm	
Edge Detail	Rebated on 2 sides (20mm x half board thickness)	

Certification

Springvale Hydroshield has third party BBA accreditation certificate 08/4529 Product Sheet 2 and is manufactured to the requirements of BS EN 13163, under an ISO 9001 certified quality management system.

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.

Hydroshield 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 from high winds and 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?

See more about our Hydroshield product at - www.springvale.co.uk or contact Technical or Sales for more information.

Phone - **01457 863 211** or Email - technical@springvale.com

