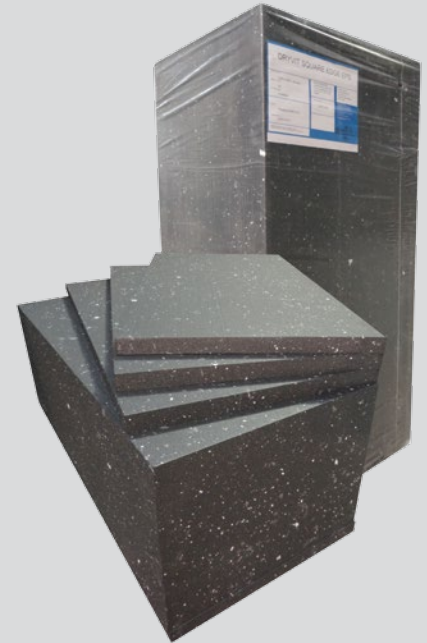


# DRYVIT LL EPS (Grey)

DUK 937

High performance thermally insulating expanded polystyrene rigid closed cell foam for receiving Dryvit base coat and finishes



## PRODUCT DESCRIPTION

Dryvit low lambda (LL) expanded polystyrene (EPS) 70E is manufactured to the requirements of BS EN 13163 from pre-foamed beads of polystyrene. These are fused together under pressure in a steam-heated mould to produce a lightweight cellular plastic with an enhanced thermal insulating performance to that of standard EPS (white). It is available as a square edge board for use in Dryvit Outsulation and Drysulation direct fix External Wall Insulation (EWI) systems or grooved board for use with Outsulation Rail systems.

## PROPERTIES

- |  |                                       |
|--|---------------------------------------|
| • Density                                | Nominal 15 kg/m <sup>3</sup>          |
| • Length                                 | ± 3 mm or ± 0.6% whichever is greater |
| • Width                                  | ± 3 mm or ± 0.6% whichever is greater |
| • Thickness                              | ± 2 mm                                |
| • Squareness                             | ± 5 mm per 1000 mm                    |
| • Compressive strength @ 10% compression | 70 kPa                                |
| • Thermal Conductivity @ 10°C            | 0.030 -0.033 W/mK                     |
| • Fire Class to BS EN 13501-1 2007       | Euroclass E                           |

## FEATURES & BENEFITS

FEATURE	BENEFIT
• Lightweight	Reduced imposed structural loads
• Thermally efficient	Excellent insulating properties
• Easy to work with	Can be readily shaped and formed
• BRE Green Guide rating A+	Low environmental impact over whole product life cycle
• Contains fire retardant	Reduced rate of flame spread

## TYPICAL SUBSTRATES

- Concrete
- Brick
- Lightweight block or aerated autoclaved concrete
- Lightweight steel or timber framed structures using appropriate sheathing boards
- Sheathing boards - Cement particle board, cement fibre, timber, exterior gypsum, calcium silicate, magnesium oxide

## USES

Dryvit LL EPS is used to provide insulation to the external walls of new construction and refurbishment projects when used as an integral part of the Outsulation® and Drysulation range of External Wall Insulation systems.

## PACKAGING

Dryvit Square Edge: 20 mm - 300 mm  
Dryvit Grooved: 50 mm - 250 mm

Boards supplied in 10mm increments. For pack size or thickness outside standard sizes, please contact Dryvit for information.

## COVERAGE

Square Edge EPS - 1200 x 600 mm boards  
0.72 m<sup>2</sup>/board (1.34 boards/m<sup>2</sup>).

Grooved EPS - 500 x 500 mm boards  
0.25 m<sup>2</sup>/board (4 boards/m<sup>2</sup>).

## SPECIFICATION

Specification clauses relating to this product can be found in NBS sections M21 Insulation with Rendered Finish. Please consult Dryvit UK Ltd.

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## APPLICATION METHOD

**Note:** Individual product data sheets and relevant Dryvit system application instructions should be referred to for detailed guidance.

### Outsulation and Drysulation

**Adhesive fixing** - Dryvit Genesis, Primus, Rapid Dry DM™ 35 - 50, Rapid Dry DM™ 50 75, Genesis DM, Dryflex, Dryhesive™ Plus or ADEPS are suitable adhesives applied to the back of the square edge insulation board, not to the substrate. The ribbon and dab method is usually used for fixing insulation to solid substrates with a ribbon around the entire perimeter and eight dabs placed on the interior area of the insulation board. The notched trowel method is usually used for fixing insulation to sheathing board and flat substrates and is created using a notched trowel to form adhesive beads running vertically when the insulation board is placed on the wall.

**Mechanical fixing** - When required to supplement adhesive fixing if the load bearing characteristics of the substrate are poor (below 0.08 N/mm<sup>2</sup>) or wind load design cannot be achieved. Dryvit approved fixings should be installed in accordance with instructions to the structural design engineers' approved fixing pattern.

### Outsulation Rail

**Rail Fixing** - Where a drainage plane or drained cavity is required to allow passage of incidental moisture from light weight steel or timber frame structures (NHBC requirements) or the building line maintained on a concrete or masonry substrate, grooved LL EPS can be interlocked between mechanically fastened rails shimmed from the substrate.

**Mesh embedment** - Common to all systems - prior to starting reinforcing mesh embedment, rasp any visible discolouration and irregularities or out-of-plane board joints to provide a uniform and smooth surface. All EPS dust and loose beads shall be removed prior to base coat application. Using a stainless steel trowel, apply the base coat either Dryvit Genesis, Primus, Primus M, Rapid Dry DM™ 35 - 50, Rapid Dry DM™ 50 - 75, Genesis DM or Dryflex on the entire surface of the insulation board to an area slightly larger than the width and length of a piece of reinforcing mesh, in a uniform thickness of 1.5 mm. Immediately place the reinforcing mesh against the wet base coat mixture and trowel from the centre to the edges avoiding wrinkles, until the mesh is fully embedded and not visible. Trowel smooth to a uniform thickness slightly more than the thickness of the reinforcing mesh. Allow this layer to take up until firm to the touch and then trowel a second tight coat over the first to fully cover the reinforcing mesh. The result should be such that the reinforcing mesh is approximately centred within the base coat thickness.

## ENVIRONMENTAL

The Building Research Establishment (BRE) Green Guide to Specification, which is part of the BRE Environmental Assessment Method (BREAM) has assigned EPS an A+, the highest possible ranking for any insulation material. The expanding agent used in manufacturing contains no CFC's or HCFC's and EPS has an Ozone Depletion Potential (ODP) of zero and a low Global Warming Potential. EPS will not sustain mould growth and has no nutrient value to insects or vermin.

## FIRE APPROVALS

Dryvit LL Square Edge EPS and Dryvit Grooved LL EPS board has been independently tested.

### BS EN 13501

Spread of flame classification when tested as part of Drysulation is conformant to B and C classifications dependent on the base coat and finish.

Information contained in this product data sheet conforms to the standard detail recommendations and specifications for the installation of Dryvit UK Ltd. products as of the date of publication of this document and is presented in good faith. Dryvit UK Ltd. assumes no liability, expressed or implied, as to the architecture, engineering or workmanship of any project. To ensure that you are using the latest, most complete information, contact Dryvit UK Ltd.

### STORAGE

Store in dry undercover conditions out of high winds and protect from sunlight. Dryvit LL EPS is combustible and should be stored away from highly flammable substances such as petrol or solvent paints. No smoking should be allowed in storage areas and product should not be exposed to flame or ignition sources.

### HEALTH AND SAFETY

EPS is non-toxic and biologically inert. It is not irritating to the eyes or skin and no medical treatment is required if accidentally ingested. No special precautions are required when handling or cutting when carried out in a well ventilated area. The flame retardant additive Hexa-bromocyclododecane (HBCD) is less than 0.5% bound into the polymer matrix.

### DISPOSAL

Uncontaminated EPS can be re-cycled. Where this is not possible, although inert and non-toxic, care should be taken to dispose of waste and off cuts at a licensed waste site. The European waste code (EWC) for EPS is 17 06 04.

### FURTHER INFORMATION

Refer to Application Instructions and the product Safety Data Sheet.

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