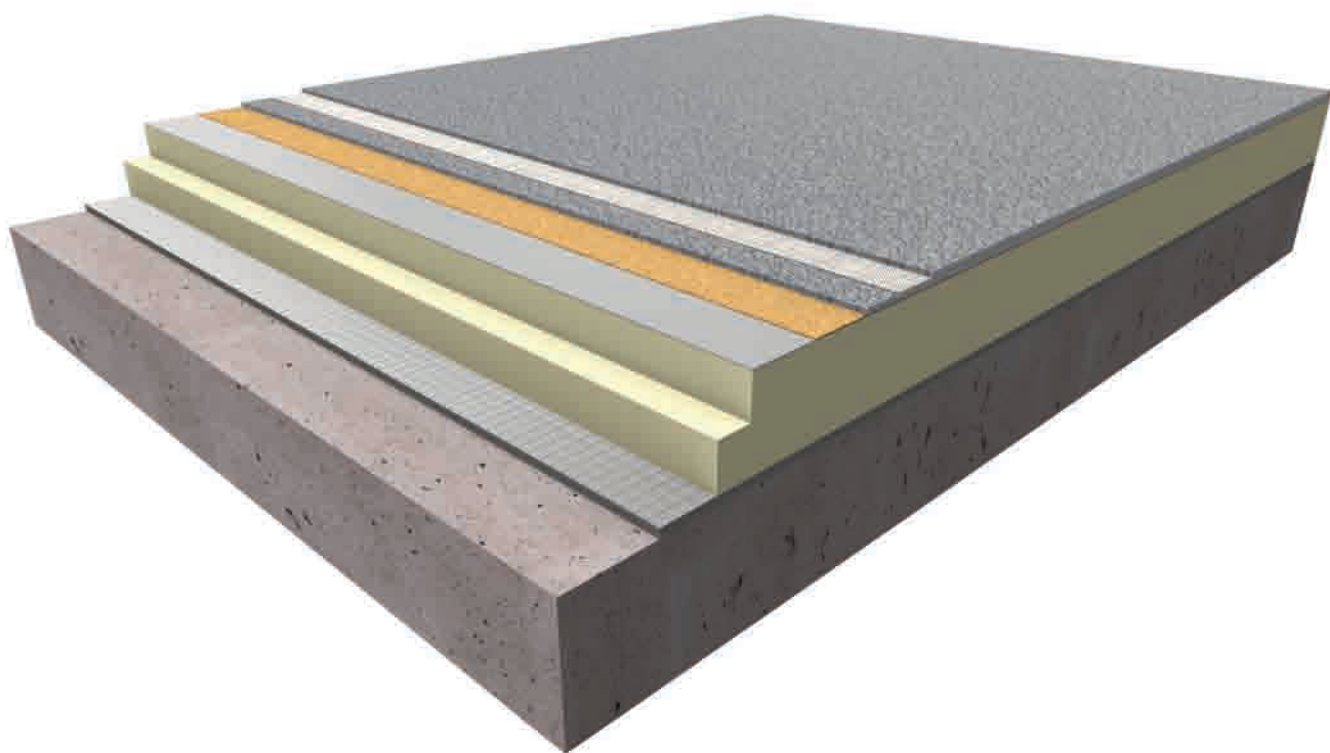


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# ParaFlex

Cold resin waterproofing



# OVERVIEW

## ParaFlex

ParaFlex is a fast curing, cold applied polyester resin waterproofing system. It is ‘wet on wet’ between layers so it doesn’t need to be left to cure between coats. This means a faster application to give a continuous monolithic material.

Unlike some cold applied systems ParaFlex can be applied at temperatures below zero and reliable sealing can even be done at -5°C. It can be installed with zero falls, comes with a durability statement in excess of 35 years for exposed conditions, and a lifetime durability statement when used for protected (inverted) roofs.

ParaFlex is used for a wide range of waterproofing applications such as:

- Cold roofs
- Inverted roofs
- Overlay applications
- Green roofs
- Walkways
- Balconies



**30 year material and labour guarantee**

ParaFlex can be applied to a variety of flat waterproofing systems that have either failed or need to be thermally upgraded to comply with current legislation. It provides a quick, low cost solution with minimal disruption.



ParaFlex is available in black or light grey as standard and is engineered to defend against ultra violet (UV) radiation. Additional colours are available if required.



ParaFlex has a hard wearing surface that can be used in exposed situations. The final coat can have a scattering of coloured micro chips for a pleasing aesthetic or a covering of kiln dried sand can be set into the top layer to delineate a walkway or provide a textured surface.

**Fast, easy application**

ParaFlex can also be used to provide long lasting waterproofing to water features, fountains or any structure designed to hold and retain water.



ParaFlex is a fully adhered membrane and therefore achieves a total bond to whatever surface or substrate you need to waterproof.



## Applications

- Flat roofs
- Pitched roofs
- Vertical surface
- Complicated structures such as domes and barrel-vault roofs
- Penetrations, such as fan and pipe ducts, plant support footings, roof-lights and chimneys
- Water features
- Plant rooms
- Balconies

ParaFlex is root resistant and therefore ideal when specified for roof gardens, especially where the integrity of the waterproofing system is imperative given the inaccessibility of the membrane once installed.



## Warranty and Approved Contractors

Radmat maintains an approved contractor service throughout the UK. All contractors are trained to install ParaFlex and each site operative will be registered and individually reviewed every 18 months. This will ensure that the highest standards of workmanship are achieved. For more information contact Radmat technical services.

## Key Benefits

- Simple and fast application
- No curing time required between coats
- Foot traffic is possible within 30 mins
- 'Wet on wet' system giving continuous, monolithic seal
- Can be applied at temperatures as low as -5°C
- Can be installed with zero falls
- Suitable for warm roofs
- 35 year durability statement for exposed conditions
- Lifetime durability statement for protected roofs
- Suitable for vertical applications and complex shapes and details
- Suitable for green roof and roof garden applications
- Root resistant
- Will accommodate minor movement without damage
- Suitable for light foot traffic and light concentrated loads
- BBA Certified

## Guarantee

ParaFlex has been independently certified by the BBA. It has been applied within the United Kingdom and mainland Europe and has decades of proven performance. Radmat approves a selected group of experienced roofing contractors to install ParaFlex which are registered only when full training has been given. Radmat guarantee the performance of ParaFlex and the installed workmanship for 30 years.



**ParaFlex is certified by the BBA to last the lifetime of the structure in which it is incorporated**

# INSTALLATION

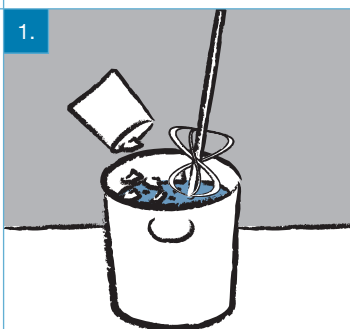
## Installation

ParaFlex is an unsaturated polyester resin that can be laid in temperatures as low as  $-5^{\circ}\text{C}$ . It is used with either a polyester non-woven fabric mesh or a fibreglass mat which acts as a reinforcement layer. The result is a continuous monolithic seal which prevents moisture ingress.

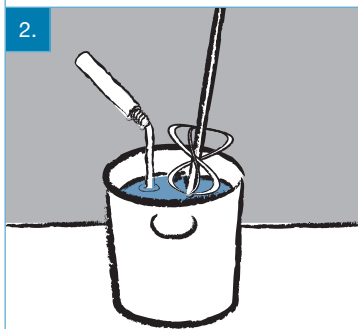
### Prepare the material

Stir the white catalyst powder into the resin and allow to dissolve for approx. 15 mins.

1.

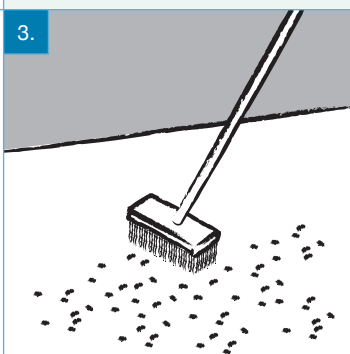


2.



Add the white cap resin accelerator to activate the curing process. Only add the accelerator when you are about to apply the product to the primed roof area.

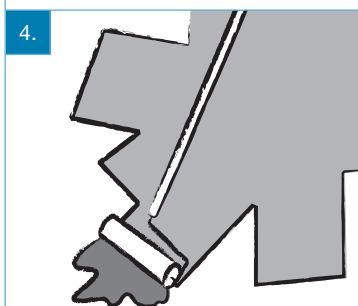
3.



### Substrates

The substrates must be free from oil and dust, with no loose pieces of material.

4.



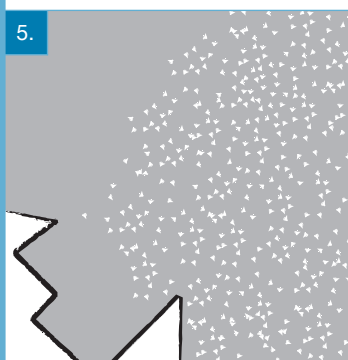
### Priming

Treatment of all surfaces with ParaFlex universal primer is essential prior to the application of the waterproofing layer.

Universal primer is mixed with the red cap accelerator at 5 ml per litre to enable a fast curing process. Within normal daytime conditions the primed surface will be ready to accept ParaFlex within 45 mins.

## Rainproof after 20 mins

5.

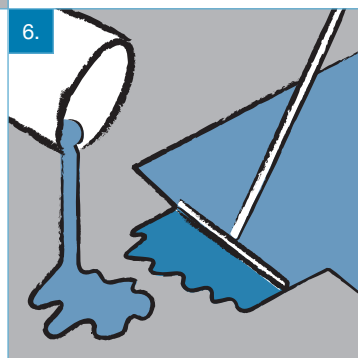


Immediately after the application of the primer a layer of kiln dried sand is hand scattered into the curing liquid to create a strong, coarse surface. This provides a powerful key for the ParaFlex.

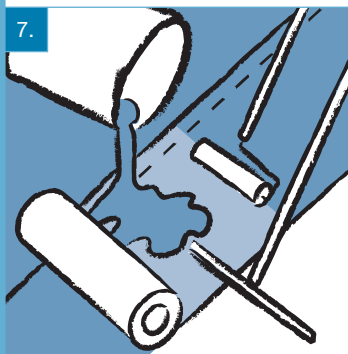
### Waterproofing

The first layer of ParaFlex is applied to the primed surface and spread evenly using a fleece roller.

6.

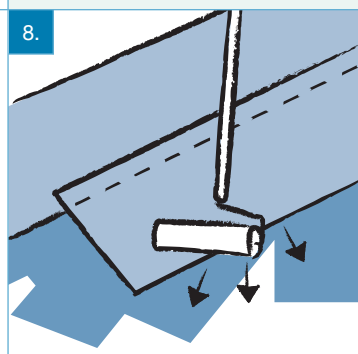


7.



A polyester fleece is then embedded in the wet ParaFlex resin. The final coat of ParaFlex can then be applied making sure the finished surface is even and smooth.

8.



Ensure all air pockets are removed during the installation by rolling towards the edges of the fleece.

Note: In laying the fleece ensure an overlap of at least 50mm is made. ParaFlex is rainproof after 20 mins and can take light foot traffic in 30 mins.

9.



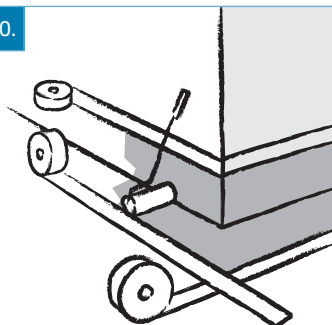
### Optional surface treatment

A solid colour can be added, or microchip flakes can be scattered into the surface for a pleasing aesthetic finish.



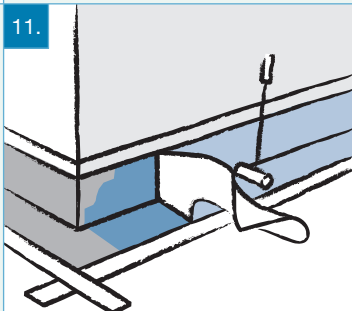
## Can take light foot traffic after 30 mins

10.



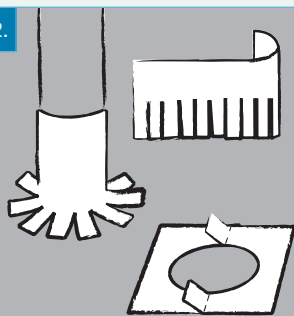
Follow the same procedures as before when working with upstands. Ensure generous amounts of primer are applied to all vertical surfaces. Some substrates may require a specialist primer e.g. steel and copper. Read instructions on the application sheets or consult the ParaFlex technical team for more details.

11.



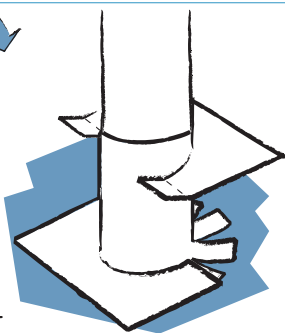
Always allow for a min. 100mm overlap at the end of each piece of fleece. Never use just one piece of fleece for long runs, always use a length that you are comfortable handling.

12.

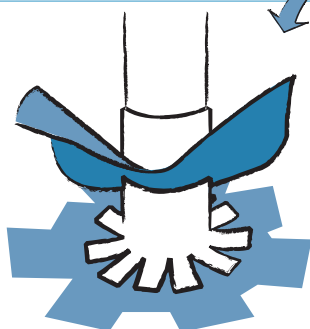


### Cutting to size

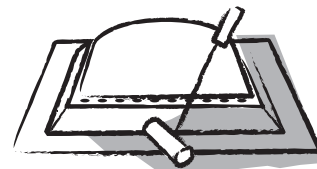
Penetrations within the roof area should have a pre-cut fleece. Use a single vertical section with a cut at every 25mm to allow for the curvature of the penetration. Thereafter lay a circular cut-out section over the fleece that is 10-20mm in diameter smaller than the pipe.



**Can be applied at -5°C**



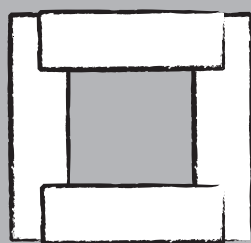
13.



### Waterproofing a dome light

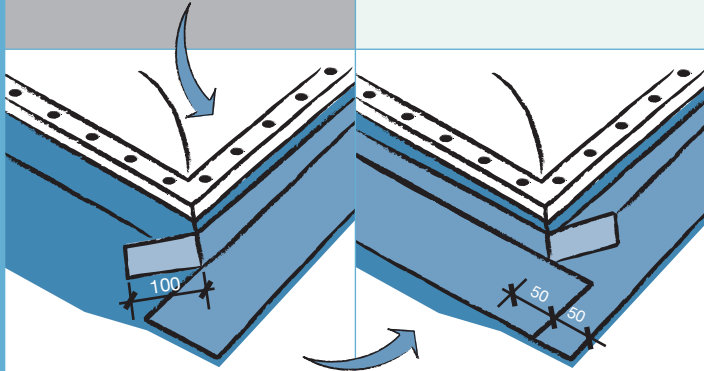
Prime the dome curb and area around the base of the dome.

14.



Cut the fleece, allowing for overlaps at each end of the dome.

Note: The fleece overlaps must be min. 50mm. On the base a min. 100mm overlap is required. The result is a monolithic breathable membrane.

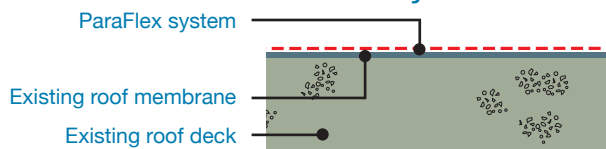


### Mixing Table for White Cap Accelerator

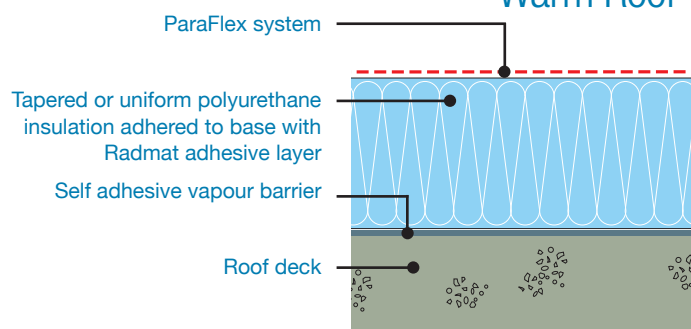
Seasonal variation	Air temperature	Amount of white cap accelerator added per kg of ParaFlex	Working time/pot life
Winter conditions (Nov-Feb)	-5°C to 0°C	30g	30-40 mins.
	+1°C to +5°C	25g	25-35 mins.
	+6°C to +10°C	20g	20-30 mins.
Normal conditions (Feb-May and Sep-Oct)	+11°C to +15°C	15g	20-25 mins.
	+16°C to +20°C	10g	15-20 mins.
Summer conditions (Jun-Aug)	+21°C to +35°C	5g	10-20 mins.

# TYPICAL APPLICATIONS

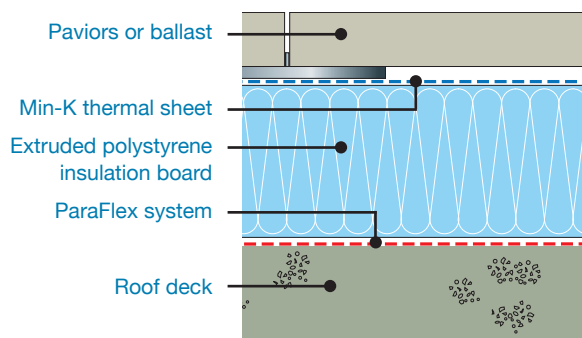
## Overlay Cold Roof



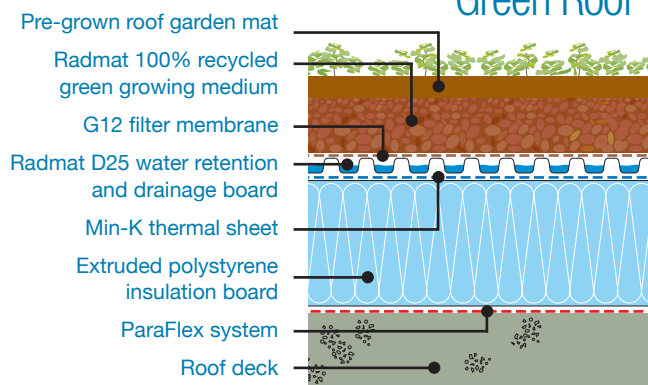
## Warm Roof



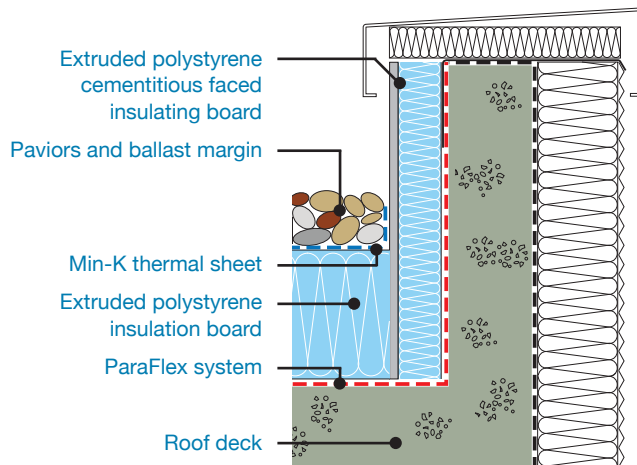
## Inverted Roof



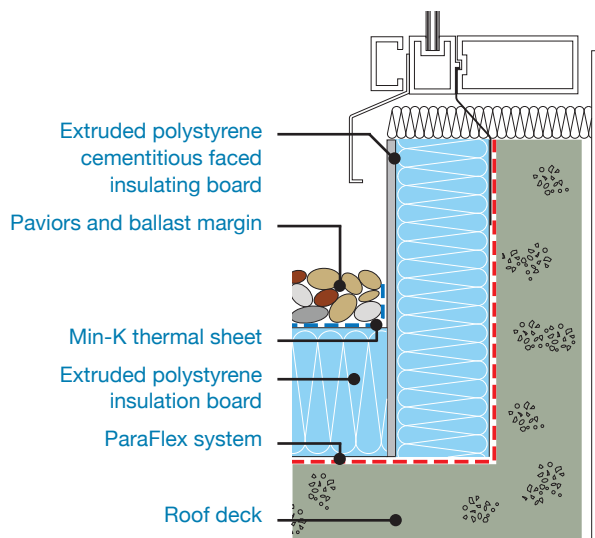
## Green Roof



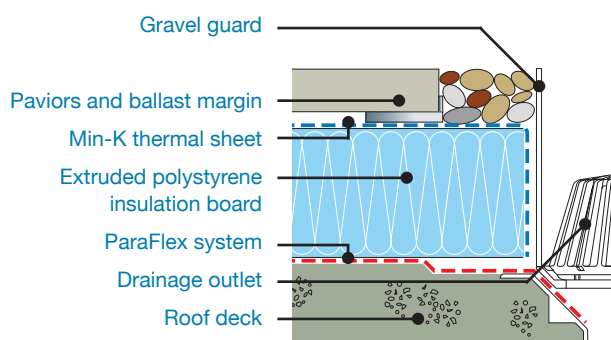
## Parapet Detail



## Upright Detail



## Outlet Detail



# PRODUCT DATA



## Product Data

Product	Description	Details	Coverage
Universal Primer*	20 kg drum	400 grams/m <sup>2</sup>	50 m <sup>2</sup>
Kiln Dried Sand	25 kg bags	1 kg/m <sup>2</sup>	25 m <sup>2</sup>
ParaFlex**	20 kg drums	2.5 kg/m <sup>2</sup>	8 m <sup>2</sup>
ParaFlex 165g Fleece	50m x 1050mm	165 grams/m <sup>2</sup>	52.5 m <sup>2</sup>

\* The primer has a red cap accelerant that comes with the drums.

\*\* The ParaFlex resin has a white cap accelerant and a catalyst hardener that is supplied with the drums.

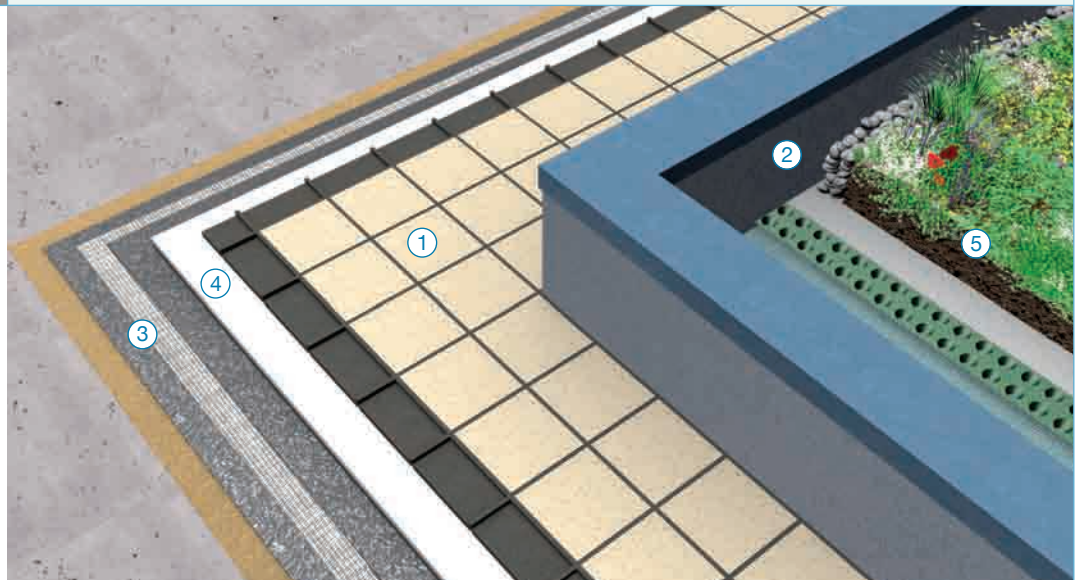
## Fast, easy application



- BBA approved for zero falls
- BBA approved for green roofs
- BBA approved for lifetime of structure with inverted systems
- BBA approved for 35 years plus, when exposed
- BBA approved for -5°C application
- Complete system finished and trafficable within 90 minutes

### Key

- ① TredWay/Tredlite
- ② PermaQuik
- ③ ParaFlex
- ④ NanoTherm
- ⑤ MedO

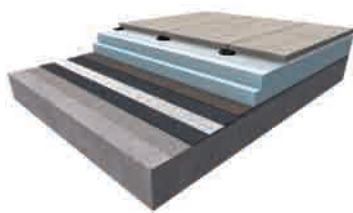


Suitable for integration with other Radmat products

Also available from Radmat

### **PermaQuik**

Leading hot melt bitumen membrane for waterproofing structures from ground to roof.



### **Med0**

Green roof solution suitable for extensive, semi-intensive, intensive and biodiverse green roofing systems.



### **TredWay**

A fast easy-lay modular paving system that is hard-wearing, frost resistant with excellent acoustic qualities.



### **NanoTherm**

A unique insulant that uses nanotechnology. The same U-value performance as other leading insulation products, at radically reduced thicknesses.



### **Esha Universal** *Unique membrane technology*

An exceptional environmentally friendly membrane, made from recycled materials and is itself 100% recyclable.



Radmat Building Products Ltd  
Esha House  
St Mary's Business Park  
Albany Road  
Market Harborough  
LE16 7EB

Phone: 01858 410372  
Fax: 01858 410572  
techenquiries@radmat.com  
www.radmat.com