Welcome

Specialists in roofing and waterproofing

Radmat Building Products is an independent British company providing waterproofing and insulation systems that will provide a lifetime's protection for your building's structure.

Our high performance products are independently certified, including *PermaQuik* and *ProTherm Quantum® PLUS+*, offer extensive and revolutionary potential for architects, consulting engineers and quantity surveyors and are incorporated within some of the UK's most iconic landmark buildings.

Our team are committed to providing superior roofing and structural waterproofing products supported by exceptional technical support to the specifier and construction team.

Radmat®
building products

www.radmat.com

BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVALS FOR CONSTRUCTION

Achilles Building Confidence

About us

A lifetime's protection for your building's structure

Our high performance waterproofing materials, including *PermaQuik Hot Melt Monolithic waterproofing*, *Esha Reinforced Bitumen Membranes*, *ParaFlex and ReadySeal Liquid Applied Coating* and *EshaPlan Single Ply Membranes* are backed by comprehensive guarantees and technical support.

Supplying only through *Radmat Approved Contractors* we provide complete design and technical support to the entire construction team, aiding delivery of the right solution at the right price. Whether new build or refurbishment our focus is on providing the most suitable waterproofing solution, taking into consideration requirements such as design, aesthetics, thermal performance, budget, buildability, drainage requirements, wind uplift resistance, safety programme and ultimate client use.

Our long standing relationships with some of the UK's leading clients, specifiers, surveyors, main contractors and specialist roofing contractors bear testimony to our levels of commitment to doing the job right first time, an attitude that has benefitted many prestigious projects across the United Kingdom.

The Westfield Centre, Shepherds Bush, London has one of the largest roofs ever designed in central London. With a huge choice of possible waterproofing systems, *PermaQuik* was chosen to provide the long term security necessary to protect some of the most expensive areas of retail space in the world.

Services

Whether new construction or refurbishment Radmat Building Products supplies guaranteed roofing solutions tailored to the individual needs of the application.

Radmat supply a range of waterproofing systems that support our objective of providing the most applicable solution for every project. To enable us to establish the correct specification for an individual project requires a range of specialist support services, including; bespoke NBS specifications, CAD details, site surveys and application inspections, all delivered with professionalism and backed by expertise borne from years of experience.

We pride ourselves on the calibre and technical expertise of our staff, who have extensive experience in all forms of flat roofing technology, insulation materials and contracting. The unique combination of these skillsets enables Radmat to develop effective roofing and waterproofing solutions and provide extensive technical support at all stages of the construction process. Whether writing a specification, commenting on design details or discussing the most appropriate solution we are committed to delivering practical and cost effective roofing solutions that are buildable.

For comprehensive support for your roofing projects contact
Radmat Building Products
Tel: **01858 410372**
techenquiries@radmat.com
www.radmat.com

Crossrail Place, Canary Wharf, London
Extending more than 300 metres along the north dock, the above ground scheme includes four levels of shops, cafes and restaurants, as well as extensive public gardens, which are densely populated with trees and plants. The waterproofing materials were supplied by Radmat using *PermaQuik 6100, Radmat Root Barrier, ProTherm G insulation.*

Radmat Product Range

PermaQuik PQ6100	Hot Melt Monolithic Waterproofing	**14-15**
EshaFlex & EshaGum	Reinforced Bitumen Membranes	**16-17**
EshaPlan	Single Ply Membrane	**18-19**
EshaUniversal	Single Layer Membrane	**20-21**
ParaFlex	Cold Resin Membrane	**22-23**
ProTherm / Quantum PLUS+	Thermal Insulation	**24-25**
BlueRoof	Rain Water Management	**26-27**
MedO	Living Green Roofs	**28-29**
Ancillary Components	Accessories	**30**

The Walkie-Talkie, 20 Fenchurch Street, London | Rafael Viñoly Architects

Entrusted to roof the UK's iconic buildings

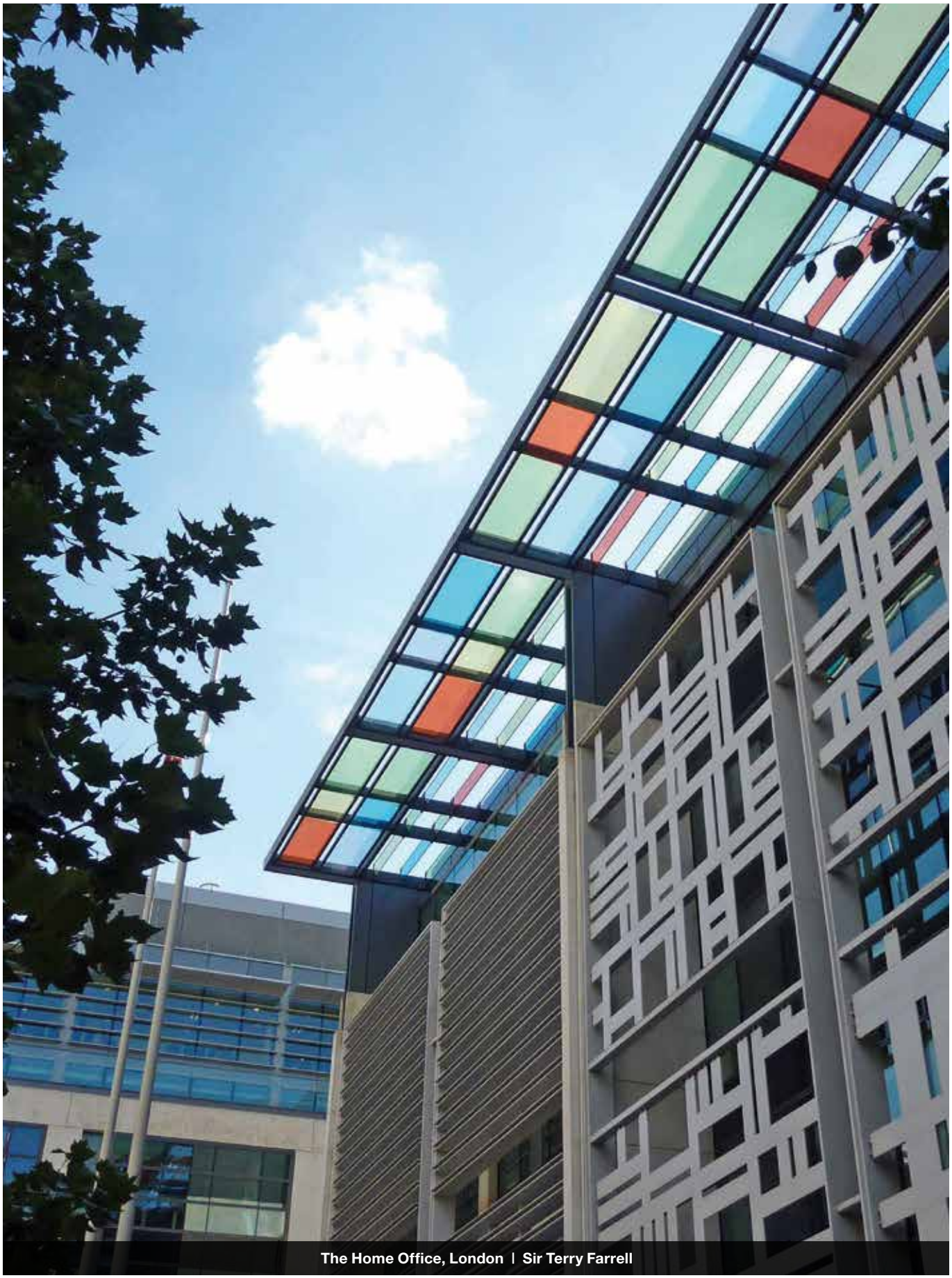

Canary Wharf, London | Foster + Partners


Arup, One New Change, London | Ateliers Jean Nouvell


Library of Birmingham | Mecanoo


GCHQ, Cheltenham | Gensler


City Hall, Southbank, London | Foster + Partners



The Home Office, London | Sir Terry Farrell

The Deep Aquarium, Hull | Sir Terry Farrell

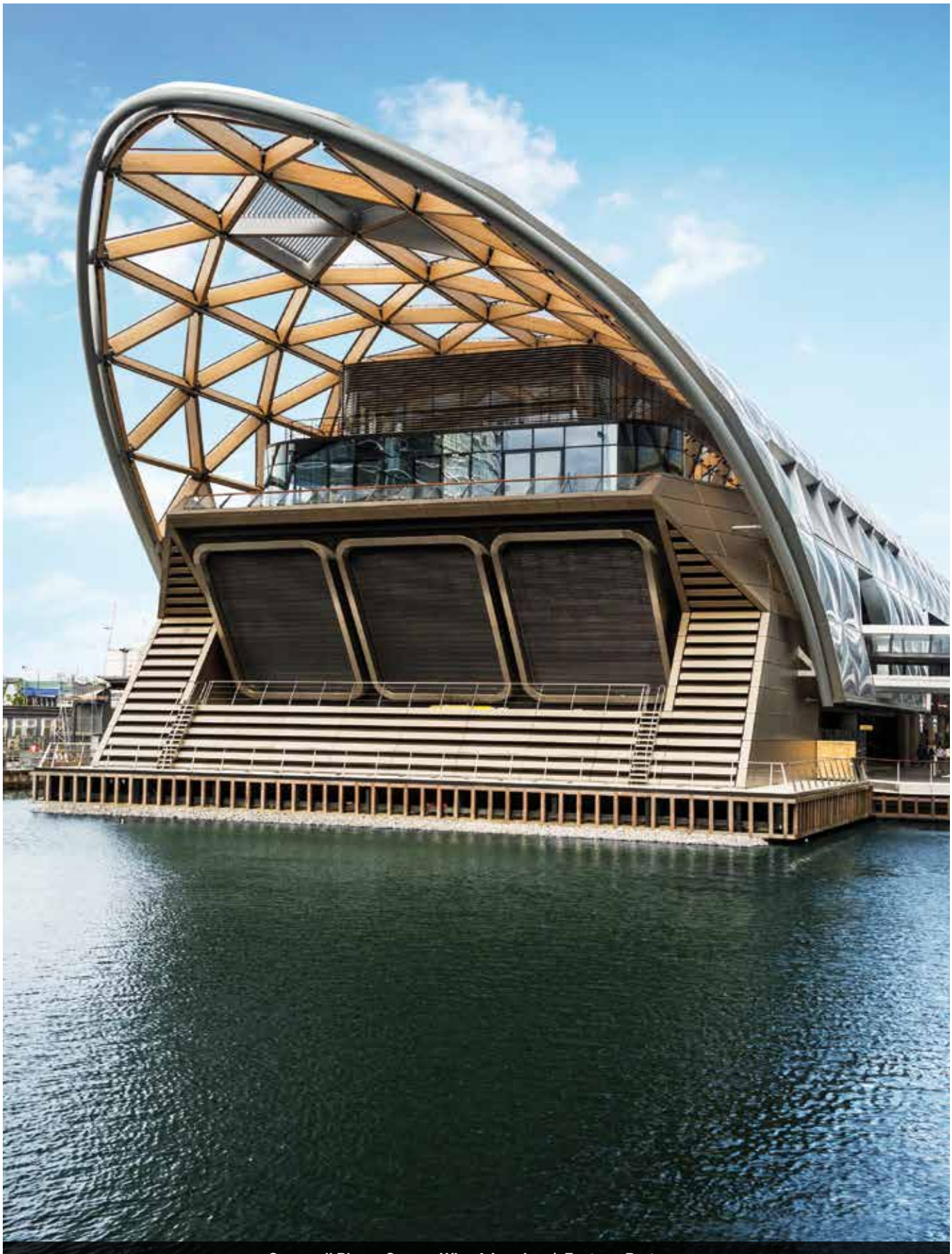
Scottish Parliament, Edinburgh | Enric Miralles

The Willis Building, 51 Lime Street, London | Foster + Partners

Civil Justice Centre, Manchester | Denton Corker Marshall

The Treasury Building, London | Foster + Partners

Wimbledon, SWI9, London | Stanely Peach



Crossrail Place, Canary Wharf, London | Foster + Partners

University College London Hospital | LDY Architects

St Mary Magdalene Academy | FieldenCleggBradleyStudios

Paternoster Square, London | Various architects

Westfield Centre, Shepherd's Bush | Allies & Morrison

Alder Hey Children's Hospital, Liverpool | BDP

Francis Crick Institute, London | HOK with PLP Architecture

PermaQuik PQ6100 is a hot melt monolithic membrane roofing system suitable for inverted roof, basement and podium waterproofing applications; including zero falls applications.

Applied in two layers that encapsulate the PQ2017 polyester reinforcing fleece, PermaQuik PQ6100 combines excellent waterproofing performance with toughness, durability, flexibility and strong adhesion to a variety of substrates.

Developed in Canada in the 1960's, PermaQuik PQ6100 is manufactured in the UK following extensive research and development with Shell UK in our ISO14001 production facility. Its unique blend of bitumen, natural rubbers and polymers create a membrane that has self-healing properties, can be installed to zero falls in accordance with BBA Information Bulletin No 4 and has a BBA Certified durability for 'the design life of the roof in which it is incorporated'.

BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVALS FOR CONSTRUCTION

Certificate No 97/3336

The new **Library of Birmingham** installation used *PermaQuik PQ6100 Hot Melt Monolithic* waterproofing system, set to deliver exceptional performance befitting of the uniquely designed structure which has set a remarkably high standard for library design.

PermaQuik™ Hot Melt Monolithic Membrane

GCHQ building, Cheltenham
Beneath the central green roof at GCHQ, *PermaQuik* was specified to provide a lifetime of waterproofing security.

- **Completely seamless monolithic bond so water cannot track within the system**
- **Upstands can be installed first allowing other trades to swiftly progress with the building's fabric**
- **Excellent low-temperature flexibility and adhesion characteristics**
- **Once covered with a protection sheet can be opened up to following trades delayed by inclement weather and speeding up site programming**
- **High compressive strength – ideal for high trafficked areas and plant rooms**
- **Self-heals minor damage under applied loads**
- **Quick application and no curing time leaves roofs instantly water tight**

Installed to achieve a minimum thickness of 6mm, PermaQuik PQ6100 is finished with either a standard or root prevention wearing sheet prior to being electronically tested. In inverted roof applications Radmat ProTherm Inverted Roof Insulation board and Grey Thermal Sheet water control layer are installed prior to the chosen surface finish. A range of finishes are possible, including paving, ballast, timber decking and Radmat MedO living green roofs.

In accordance with the LRWA Hot Melt Code of Best Practice a flexible neoprene strip is applied to the angle changes at perimeters and detailing, this facilitates minor movement and prevents cracking. Perimeter upstands are finished with ProTherm Rockface FR, a non-combustible Fabrock that will not develop smoke or promote flame spread, even when directly exposed to fire. It also repels and drains water aided by a 6mm, weather resistant, high impact facing board.

Fully bonded inverted roofing systems including zero falls applications

- Roofs
- Balconies
- Podiums
- Terraces
- Paved finish
- Ballasted finish
- Timber deck finish

Fully bonded inverted living green and biodiverse roofing systems including zero falls applications.

- Roofs
- Balconies
- Podiums
- Terraces
- Inverted Amenity Roofs
- Biodiverse Wildlife Roofs
- Wildflower/ Extensive Sedum Roofs

Installing EshaFlex or EshaGum Reinforced Bitumen Membranes reduces installation times by up to 30%

EshaFlex SBS and EshaGum APP are innovative modified reinforced bitumen membranes engineered to meet the demands of the 21st Century.

Achieving Green Guide to Specification A+ ratings, and BBA Certified for a life expectancy in excess of 30 years, environmental credibility and ease of installation are supported by patented 'groove technology'. This technology typically reduces gas consumption by 25% (45 grams per m^2), reduces CO_2 production by 168 g/m^2 and reduces installation times by up to 30%.

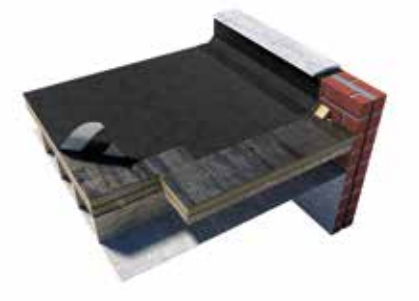
BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVALS FOR CONSTRUCTION

Certificate No 15/5282

Marner Primary School is Tower Hamlets' largest and most ambitious primary school expansion project. Radmat provided the roofing materials and services for the new roof. Products used were: *MedO Extensive Sedum*, *EshaFlex 370 Black Mineral*, *EshaFlex 370 WS Mini Slate* and *EshaVent*.

EshaFlex/EshaGum Reinforced Bitumen Membranes

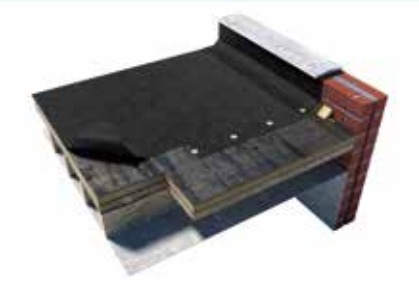
Single Layer Overlay Systems for existing roofs



EshaFlex TK60 Cap Sheet

Partially Bonded: *EshaFlex TK60* vapour pressure distribution cap sheet installed over a suitably prepared existing roof to prolong the life.

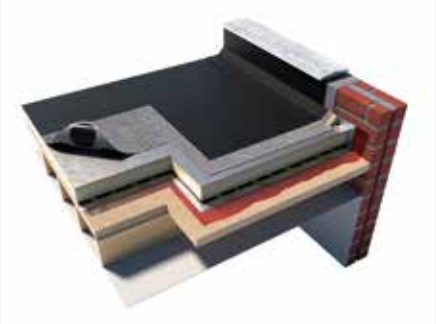
Fully Bonded: black mineral finished *EshaFlex 370 Black Mineral* cap sheet fastened through a suitably prepared existing roof construction to the substrate.



EshaFlex 370 MF Black Mineral Cap

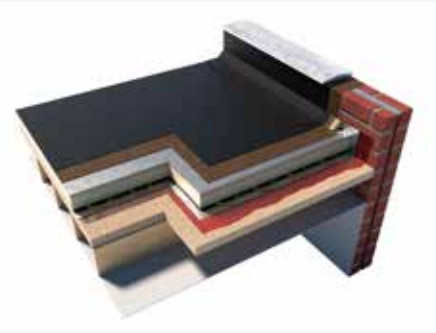
Mechanically Fixed: black mineral finished *EshaFlex 370 MF* cap sheet fastened through a suitably prepared existing roof construction to the deck.

Upgrade Systems for new or existing roofs



EshaVent with EshaFlex 370 Cap Sheet

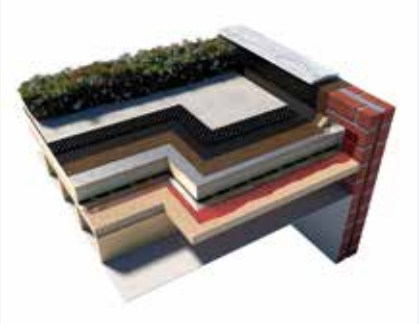
Partially Bonded: two layer systems combining *EshaVent* or *EshaTherm TK40* thermo adhesive vapour pressure layers with a mineral finished *EshaFlex 370* or *EshaGum 470* cap sheet.



EshaFlex 370 Base sheet with EshaGum 470 Cap Sheet

Fully Bonded: sand finished *EshaFlex 370 Plain* or *EshaGum 470 Plain* base sheet with a mineral finished *EshaFlex 370* or *EshaGum 470* cap sheet.

Green Roof Systems for new or existing roofs



EshaFlex 370 Plain Base sheet with EshaGum 370 WS Mini Slate Cap Sheet

Sand finished *EshaFlex 370 'Plain'* base sheet and FLL Certified *EshaFlex 370 WS Mini Slate* cap sheet either partially bonded, fully bonded or mechanically fastened and finished with a Radmat *MedO* extensive, biodiverse or intensive green roof system, subject to loadings.

Inverted, Paved and Ballasted systems for new & existing roofs

Two layers of sand finished *EshaFlex 370 'Plain'* or *EshaGum 470 Plain* fully bonded prior to the installation of the surface finish. In an inverted roof *Radmat ProTherm insulation* and *Grey Thermal Sheet* are installed prior to application of the roof finish. In a warm roof the finish is applied directly over the completed roof membrane, subject to loadings.

Certificate No 14/5085
and Certificate No 15/5219

Used widely throughout Europe and the UK since the 1970's, **EshaPlan** single ply membranes provide design freedom whilst achieving long term waterproofing integrity and high levels of environmental performance.

Suitable for flat, pitched, curved or geometrically shaped roofs in both new build and refurbishment applications, EshaPlan membranes are BBA Certified for 'in excess of 30 years', can achieve a BRE Green Guide to Specification A+ ratings and incorporate factory recycled production waste.

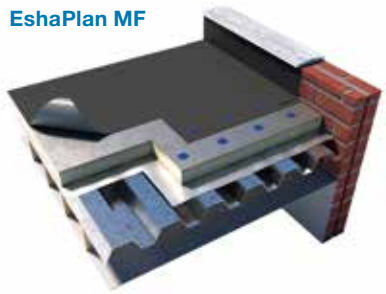
Below: *EshaPlan MF* was used to cover the large flat roof on this building in Grand Couronne, France.

Available in Light Grey (RAL7001) and Lead Grey (RAL7015) as standard, other colours available to order, EshaPlan membranes are completed by a range of compatible accessories including; unreinforced detailing membrane (EshaPlan D), membrane coated metal (EshaMetal) and a range of adhesives, compatible rainwater outlets and lightning conductor clips.

Top Right: *EshaPlan B*
Bottom Right: *EshaPlan B* with *Profile 25*

Single Layer Overlay Systems for existing roofs

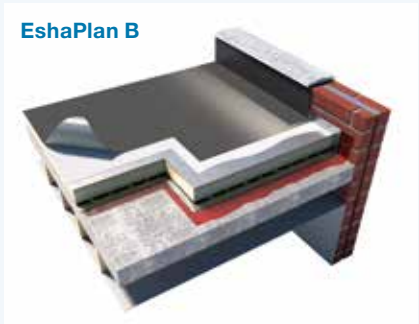
EshaPlan MF



EshaPlan MF is a polyester carrier reinforced mechanically fastened PVC-P single ply membrane that is typically installed on larger scale warm roof constructions where speed of installation is a key requirement on projects where wind uplift is high. Available in rolls up to 2.12m wide and 20m long, and a range of thicknesses from 1.2mm to 2.0mm, *EshaPlan MF* is attached to the substrate using thermally broken fasteners installed at project specific pre-determined centres to achieve a fast method of attachment without thermal bridging. Subsequent rolls will overlap the fastening zone and be hot air welded together to produce a sealed seam that is stronger than the membrane itself.

Fully Bonded

EshaPlan B



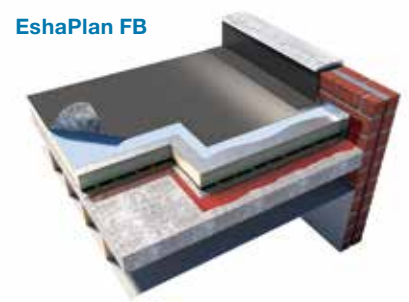
EshaPlan B and EshaPlan FB are glass fibre reinforced bonded PVC single ply membranes typically used on smaller scale warm roofs.

Where aesthetics are a key requirement fleece backed *EshaPlan FB* should be used as it helps to hide irregularities in the surface such as insulation board joints and tolerances.

Available in rolls up to 2.12m wide and 20m long, and a range of thicknesses from 1.2mm to 2.0mm, *EshaPlan* adhered membranes are attached to the substrate using *EshaBond CA* or *EshaBond PU* adhesive depending on application. As they are installed subsequent rolls are overlapped and hot air welded in the same way as *EshaBond MF*.

EshaPlan can also be used to mimic the appearance of a traditional Lead roof by adding decor porofile, an extruded profile that is simply hot air welded to the finished membrane to imitate the appearance of a traditional lead standing seam.

EshaPlan FB



EshaUniversal is a low mass, lightweight, strong, flexible, and extremely stable single layer roof covering manufactured from polyolefin copolymerisate bitumen (POCB).

This special compound creates a 3.2mm thick heat weldable membrane, reinforced with polyester and glassfibre, suitable for new build or refurbishment applications on flat or pitched roofs.

Right: *EshaUniversal* was used for the 850m^2 roof area, for the **Knauf Cube Learning Centre.** The membrane was installed over both metal and concrete decking along with an *EshaBase* vapour control layer and *ProTherm* thermal insulation.
The mid-level roof incorporates a 250m. *MedO Extensive Sedum* green roof.

Below: The Walkie-Talkie
20 Fenchurch Street, London
EshaUniversal was used in the roof garden as part of a comprehensive range of products using *PermaQuik* and *ParaFlex* for the waterproofing element.

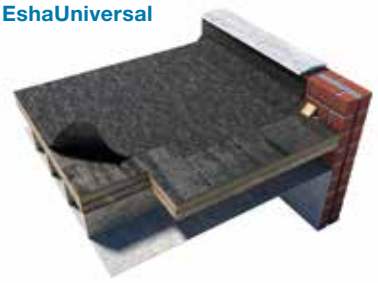
EshaUniversal Single Layer Membranes

Newbuild and refurbishment
UV resistant, without the need for surface protection, *EshaUniversal* can be applied rapidly to insulation, timber, concrete decks, or used as an overlay to existing bituminous roofing systems.

Fully Bonded
Standard *EshaUniversal* is fully bonded to a suitable insulation board or suitably prepared existing waterproofing using an *EshaBond* adhesive, either roller or spray applied. Subsequent rolls of *EshaUniversal* overlap by 80mm and are hot air welded

Mechanically Fixed
Standard *EshaUniversal* is mechanically fastened along one edge, through a suitable insulation board or suitably prepared existing waterproofing, using the appropriate *Radmat ProFast* fasteners. Subsequent rolls of *EshaUniversal* overlap the fastening zone by 130mm and are hot air welded together.

EshaUniversal

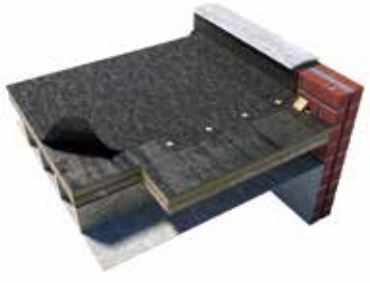


Green Roofs for new/existing roofs
EshaUniversal WS, an FLL certified root resistant membrane specifically for green roof applications can be loose laid, mechanically attached or fully bonded prior to the application of a *Radmat MedO* extensive, biodiverse or intensive green roof system (subject to loadings).

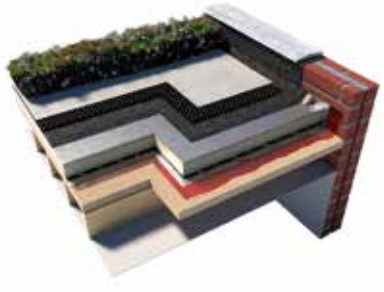
Inverted, Paved and Ballasted systems for new or existing roofs
Standard *EshaUniversal* can be loose laid, mechanically attached or fully bonded prior to the application of the desired surface finish. In an inverted roof *Radmat ProTherm* insulation and *Grey Thermal Sheet* are installed prior to application of the roof finish. In a warm roof the finish is applied directly over the completed roof membrane.

EshaUniversal has a life expectancy of up to 30 years and is fully recyclable producing a favourable Life Cycle Assessment, and meeting the strictest standards for sustainable construction; contributing to Green Guide to Specification A+ ratings and reducing the building's environmental impact.

EshaUniversal or EshaUniversal WS mechanically fixed



EshaUniversal WS used in a green roof system



ParaFlex

Liquid Applied Cold Resin Membrane

ParaFlex doesn't require a cure time between coats; speeding application and creating a continuous monolithic membrane that is fully bonded to the substrate.

ParaFlex is a fast curing, cold applied polyester resin waterproofing system suitable for both new build and refurbishment applications, including zero falls.

Designed for application either directly to a suitable substrate, over an existing waterproofing system or onto a suitable thermal insulation. Paraflex can even be installed to zero falls in accordance with BBA Agrement certificate 09/4653 in an inverted or warm roof application.

BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVALS FOR CONSTRUCTION

Certificate No 09/4653

Manufactured in Germany since 1976 ParaFlex is BBA Certified for 'at least 35 years' in exposed applications and 'for the design life of the roof' for inverted roof applications.

Mixed on site and applied in a 'wet on wet' application to encapsulate either a non-woven polyester or glass fibre carrier layer, ParaFlex doesn't require a cure time between coats; speeding application and creating a continuous monolithic membrane that is fully bonded to the substrate. Available in either black or light grey as standard (with other colours on request) the ParaFlex mix is adjusted to suit the weather; enabling ParaFlex to be installed in temperatures as low as -5ºC.

Above: Dark grey roof refurbishment

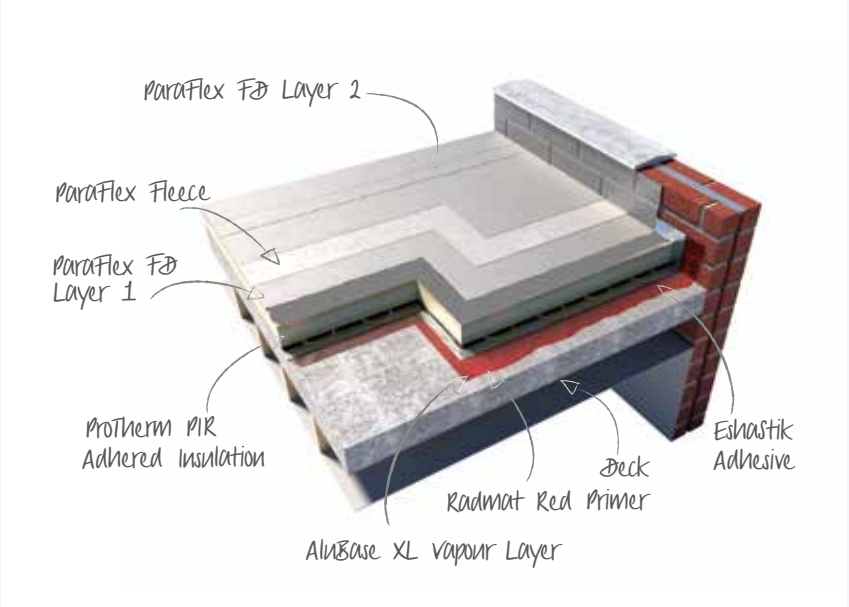
Right and left: Light grey roof refurbishment

Below: New light grey balconies

Once completed the FLL Certified ParaFlex system can be left exposed or, in inverted applications, finished with a Radmat MedO living green roofs, pavers or ballast. Where used as a self-finish in exposed applications, a hard wearing walkable surface for walkways or balconies can also be created by scattering the final coat with coloured microchips for a pleasing aesthetic, or with kiln dried sand for delineation, or to provide a textured surface.

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

- **Suitable for balconies and walkways**
- **Suitable for warm and inverted roofs**
- **Suitable for vertical applications and complex shapes and details**
- **Light foot traffic possible after 30 minutes, completely trafficable within 90 minutes.**
- **No curing time required between coats**
- **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**



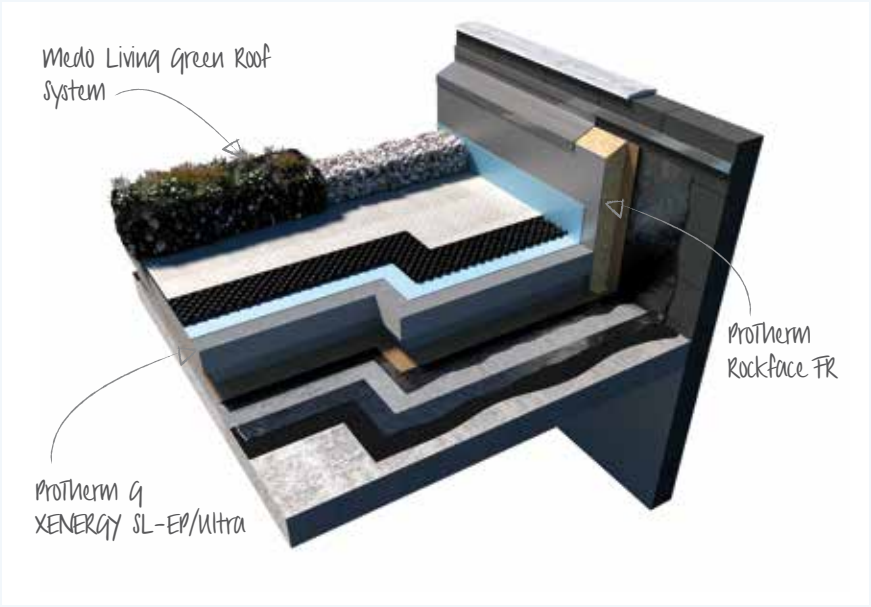
ParaFlex System – Liquid applied cold resin membrane

ParaFlex is designed for application either directly to a suitable substrate, over an existing waterproofing system or onto a suitable thermal insulation. *ParaFlex* can even be installed to zero falls in accordance with BBA Agrement certificate 09/4653 in an inverted or warm roof application.

A range of thermal insulants guaranteed as part of the Radmat Roofing system, eliminating conflict between different suppliers' guarantees.

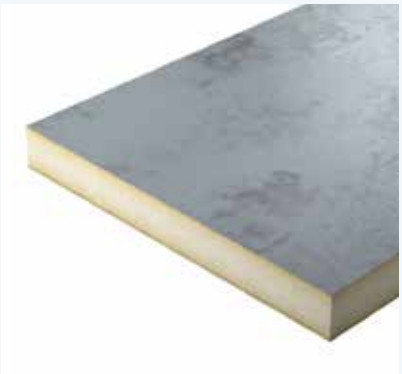
ProTherm thermal insualtion boards provide a range of solutions for both warm and inverted roof applications in both new build and refurbishment projects.

Whether meeting or exceeding the thermal requirements of the Building Regulations, or tackling the conflicting requirements of Part L, Part M and NHBC Chapter 7.1 in inverted roof applications, Radmat's technical expertise can help tailor a project specific solution.



ProTherm G XENERGY SL-EP / Ultra Inverted Roof Insulation
A unique range of rigid, closed cell type extruded polystyrene board with integral high density skin. This board utilises infra-red blocking particles to scatter and reflect heat radiation. For use with inverted roof waterproofing such as *PermaQuik PQ6100*, *EshaFlex, EshaUniversal* and *ParaFlex*. XENERGY SL-EP has a Zero Ozone Depletion Potential (ODP), a Global Warming Potential (GWP) of less than 5 and a Green Guide to Specification A+ rating. ISO 9001:2008 Quality Management System, ISO 14001:2004 Environmental Management System, EPD as per ISO 14025 and EN 15804, Green Guide to Specification Certificate No. 508c, BBA Certificate 17/5397.

ProTherm PIR
A range of BS EN 13165:2012 compliant, ISO 14001 certified polyurethane foam insulation boards. Available as uniform thickness or tapered boards with foil, bitumen coated or mineral coated glass fibre facings. Thermal conductivity from 0.022 W/mk to 0.026 W/mk.



ProTherm Rockface FR Non-Combustible Upstand Insulation Board is used to thermally insulate and protect upstand walls. Manufactured with non-combustible Fabrock it will not develop smoke or promote flame spread, even when directly exposed to fire. ProTherm Rockface FR has a Zero Ozone Depletion Potential (ODP), a Global Warming Potential (GWP) of less than 5 and an A rating in accordance with the Green Guide to Specification. ISO 9001@2008 Quality Management System, ISO 14001:2004 Environmental Management System, EPD as per ISO 14025 and EN 15804.

ProTherm MW
A multi-purpose mineral wool insulation compliant with BS EN 13162:2012, ISO 14001 certified and LPS1181:Part 1 EXT – A rating. Available as uniform thickness or tapered boards. Thermal conductivity of 0.039 W/mk.

ProTherm CelGlas
Cellular glass insulation compliant with BS EN 13167:2012, and ISO 14001 certified. Available as uniform thickness or tapered boards. Thermal conductivity from 0.045 W/m^{2}k to 0.041 W/mk.

ProTherm Quantum® PLUS+

Robust Elastomeric Coated
VIP Inverted Roof Insulation System

The depth of board to achieve an R-value of 6.250 m²K/W – rounded up to the nearest standard depth.

With the limitation of traditional products it can be difficult for a designer to insulate above a habitable space against the backdrop of increasing thermal requirements.

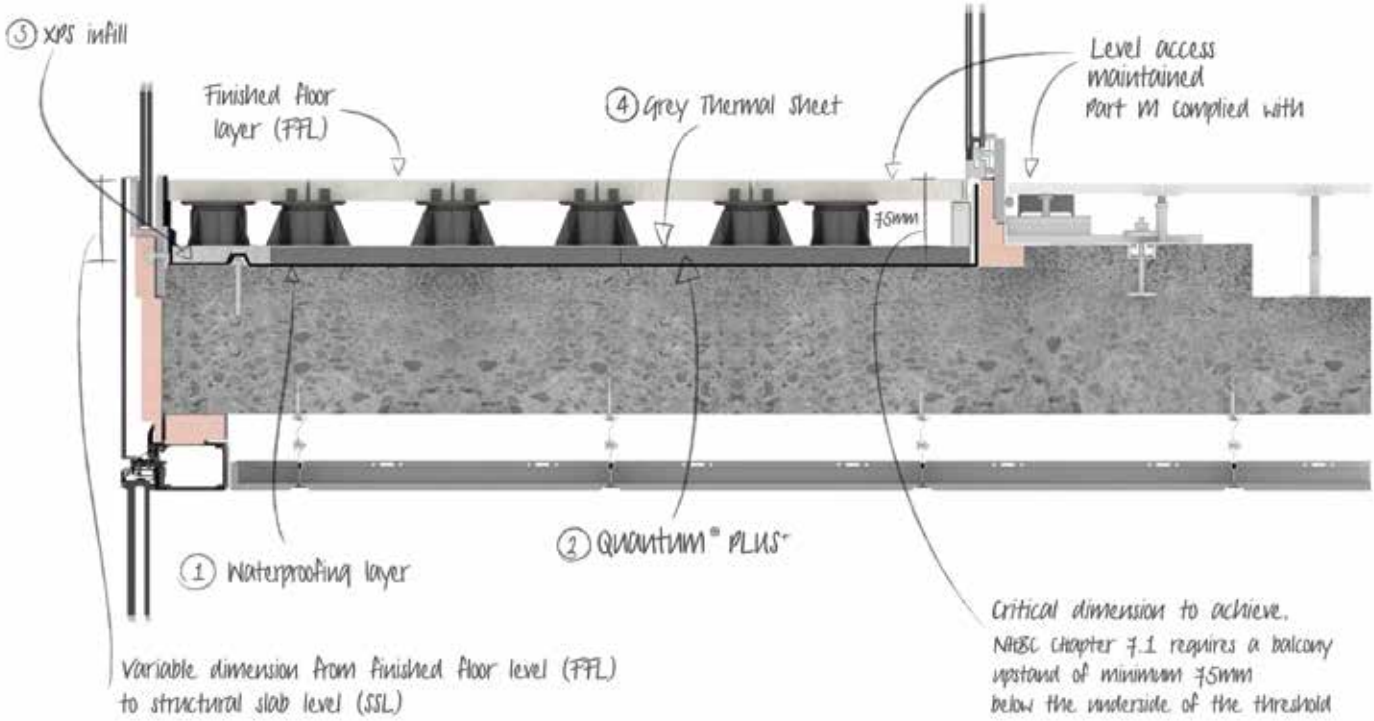
This, together with the desire to maximise the glass facade and cater for a level threshold has created a near impossible task.

The **ProTherm Quantum® PLUS+** system provides a unique method of meeting the requirements of Building Regulations Part L, Part M and NHBC Chapter 7.1 whilst achieving a level threshold.

When constructing balconies or terraces in new build situations, or refurbishing them in existing buildings, there is a requirement for both low U-values and the thinnest possible construction. Very often the insulation must be installed both on top of and on the underside of the balcony or terrace. Not only can this be time-consuming but it can also pose a condensation risk. The same is also true when refurbishing existing balconies and terraces and trying to improve thermal performance.

Developed by Radmat's roofing experts to solve regularly occuring challenges created by the drive for more thermally efficient buildings, safer access and more external space, the **ProTherm Quantum® PLUS+ VIP Inverted Roof Insulation System** enables architects to dramatically reduce the depth of a finished roof system; providing the solution to counter low upstands against the increasing thickness of traditional EPS & XPS products specified in order to meet more stringent thermal demands.

The power behind the elastomeric coated high thermal efficiency ProTherm Quantum PLUS+ VIP Inverted Roof Insulation System is a rigid Vacuum Insulation Panel (VIP). Consisting of a compressed fumed silica sand microporous core which is evacuated of air and moisture the core is encased in a special thin, gas-tight, hybrid aluminium foil envelope before having all air removed and the overlap joints sealed. The resulting VIP panel gives an outstanding thermal conductivity, providing the thinnest possible Inverted Roof insulation solution currently available.



St Pancras Place (above) and **Anchorage House, London** (below right) both use **Radmat Blue Roof systems** finished with either green roofs or paving and planters.

The management of rainfall within the built environment is an important task for the construction industry, with correct and sympathetic source control and attenuation being key to Sustainable Urban Drainage System (SuDS) design.

SuDS demands that water falling across a development site is not simply channelled into storm water drains and discharged into the local river. Instead the drainage is designed to mimic that found in nature where water is attenuated, treated and infiltrated through natural processes. In many cases the Environment Agency is involved in limiting the site discharge through a Limited Discharge Consent Notice, which may be related to the natural drainage rate of 5 litres per second per hectare of site, or lower.

Managing inner city and urban rainwater

Whilst a variety of SuDS systems can easily be integrated into large scale out of town developments managing rainwater in an inner city or urban location provides a greater challenge, particularly on brownfield sites where the land may be contaminated.

A modern method of source control and attenuation is the Blue Roof, where the roofing system is explicitly designed to attenuate rainwater rather than drain it as quickly as possible, as in traditional roof drainage design.

Blue Roofs can significantly contribute to the SuDS requirements within a development by collecting and temporarily retaining rainfall (for a maximum of 24 hours) within the roof finishes before discharging at a controlled rate. This is particularly beneficial on constrained sites, such as in urbanised areas, or brown field sites, where the use of underground tanks are difficult and/or costly.

Blue Roof System

Typical finishes above a Radmat Blue Roof include:

- **MedO Green and Biodiverse Living Roofs**
- **Paving on Pedestals**
- **Gravel Ballast**

SWB/SWG Geocells provide attenuation as part of a Blue Roof system that is designed to manage and control incident rainfall at a rate in line with the SuDS strategy or the attenuation requirements for a development.

A **Radmat Blue Roof** can be installed at either roof or podium level above the waterproofing membrane or the water flow reducing layer (WFRL) in a PermaQuik or ParaFlex FD inverted application or above an EshaFlex warm roof application. The Radmat Blue Roof will be designed to attenuate water for no more than a 24-hour period from the end of the maximum designed rainfall event. The discharge rate will be calculated to allow the roof to be half empty of attenuated water in a 12-hour period.

Attenuation within a Radmat Blue Roof System is created by either SWG or SWB Blue Roof Geocell elements, which provide a multidirectional free flowing path above the waterproofing membrane, enabling water to reach the rainwater outlets on the roof surface. The depth of the SWG or SWB Blue Roof Geocell will be designed to create a void that contains the desired attenuation capacity for the rainwater. The discharge rate through the rainwater outlet is managed via outlet restrictors sized to control the flow at the required rate. Overflow drainage will be provided by secondary methods to facilitate the removal of excess rainfall if the designed capacity is exceeded.

The roof deck for the Radmat Blue Roof should be designed to the principles of zero fall as outlined in BBA Building Bulletin No. 4. If falls are to be used, these must be taken into account when calculating the effective storage void on the roof design.

To eliminate the risk of the Blue Roof system not being designed to complement the waterproofing system, and to eliminate warranty risk or split liability, a Radmat Blue Roof System is designed to be installed on our PermaQuik, ParaFlex FD or EshaFlex waterproofing systems, which are BBA Certified for zero falls applications. For project specific information, specification and design support please contact Radmat using any of the means shown on the back page of this brochure.

MedO

Living Green Roof System

The benefits of a **living green roof system** are widely published; including their contributions to rainfall management, habitat creation aiding biodiversity, CO_2 capture, absorption of solar radiation, amenity provision, improved aesthetics, summer cooling, whole life cost savings, pollution control, oxygenation and noise reduction.

Working with expert horticulturalists, Radmat Building Products have developed the MedO range of living green roofing systems. All systems are suitable for both new and refurbishment projects and are constructed using the appropriate drainage board, filter fleece and growing medium for the planting required.

MedO Extensive
This was used on much of the living green roofs at the Olympic Village Apartments, Stratford, to provide a low maintenance and self-sustaining plant community.

MedO Living Green Roof Systems

Extensive Living Green Roofs

Suitable for flat and pitched roof applications MedO Extensive systems provide a low maintenance, self-sustaining plant community, achieved in one of three ways depending on budget and patience. Pre-grown sedum blankets provide instant cover. Pre-grown sedum plug plants provide greater diversity but only 10% to 20% cover at installation. Seeding is most economic with 40% to 60% cover taking 12 – 18 months. gain plant cover but being entirely natural once established.

Semi Intensive Living Roofs

An intermediate green roof type that can include characteristics of both extensive and intensive roofs. The deeper growing medium enables a wider range of plants to be included compared to extensive sedum green roofs, including wildflowers, shrubs and woody plants. Pre-grown wildflower and sedum blanket, pre-grown wildflower plug plants and wildflower seed mix are all available.

Planted Biodiverse Living Roofs

Typically designed to meet specific requirements, often driven by planning constraints or Biodiversity Action Plans (BAP's), usually to imitate the original ground conditions. Additional features such as insect houses, boulders, shrubs, tree branches etc, to create habitat for insect and bird species, may be included in the specification.

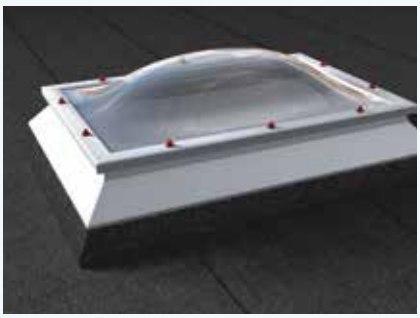
Brown Biodiverse Living Roofs

Suitable for new and refurbishment projects, MedO Brown living roofs are constructed as per Planted Biodiverse roofs but simply left to nature to seed rather than being forcibly planted at installation. Plant cover will be entirely based on wind-blown and bird brought seed, taking a significant time to gain plant cover but being entirely natural once established.

For more information about all our roofing products contact:
Radmat Building Products
Tel: **01858 410372**
techenquiries@radmat.com
www.radmat.com

To complement its waterproofing systems Radmat Building Products supplies a comprehensive range of compatible ancillary components and services, all covered by Radmat's unique system guarantee.

ProFast
Mechanical fastening solutions for Radmat thermal insulation and waterproofing systems, comprising self-coated steel and stainless steel fasteners, thermally broken tube washers, termination bars and specialty fasteners.



ProLight
The *ProLight* range of rooflight components provides a range of flat roof windows, skylights, modular or specialist rooflights tubular rooflights that are suitable for new and refurbishment projects, and can be fitted with a variety of ventilation, access and security options.

The range includes:

ProDome thermoformed polycarbonate single, double, triple and quadruple skinned lights in domed, pyramid and trapezoidal shapes.

ProCurb a range of thermally broken PVC-u upstand curbs to suit new build and refurbishment applications.

ProGlaze 32mm hermetically sealed Low E, argon filled flat double and triple glazed lights.

ProTube tubular rooflights to transfer light to targeted locations.

ProSafe
Roof safety equipment for maintenance and access, including fall prevention, fall arrest and fall restraint systems.

ProFlow
Gravity and Siphonic Rainwater outlets for roof, parapet wall and balcony applications. Available in a range of sizes and types to suit all Radmat waterproofing systems, and incorporating the range of leafguards.

ProScan
Thermographic and moisture mapping surveys to establish the condition of existing roofs.