ParaFlex
Cold resin waterproofing
**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

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 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 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.

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

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

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

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.

www.radmat.com
**INSTALLATION**

**Installation**
ParaFlex is an unsaturated polyester resin that can be laid in temperatures as low as -5°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.

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

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

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

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

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

6. **Substrates**
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Can take light foot traffic after 30 mins

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.

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.

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 -5ºC

Waterproofing a dome light
Prime the dome curb and area around the base of the dome.

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

<table>
<thead>
<tr>
<th>Seasonal variation</th>
<th>Air temperature</th>
<th>Amount of white cap accelerator per kg of ParaFlex</th>
<th>Working time/pot life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter conditions (Nov-Feb)</td>
<td>-5ºC to 0ºC</td>
<td>30g</td>
<td>30-40 mins.</td>
</tr>
<tr>
<td></td>
<td>+1ºC to +5ºC</td>
<td>25g</td>
<td>25-35 mins.</td>
</tr>
<tr>
<td></td>
<td>+6ºC to +10ºC</td>
<td>20g</td>
<td>20-30 mins.</td>
</tr>
<tr>
<td>Normal conditions (Feb-May and Sep-Oct)</td>
<td>+11ºC to +15ºC</td>
<td>15g</td>
<td>20-25 mins.</td>
</tr>
<tr>
<td></td>
<td>+16ºC to +20ºC</td>
<td>10g</td>
<td>15-20 mins.</td>
</tr>
<tr>
<td>Summer conditions (Jun-Aug)</td>
<td>+21ºC to +35ºC</td>
<td>5g</td>
<td>10-20 mins.</td>
</tr>
</tbody>
</table>
### TYPICAL APPLICATIONS

**Overlay Cold Roof**
- ParaFlex system
- Existing roof membrane
- Existing roof deck

**Inverted Roof**
- Paviors or ballast
- Min-K thermal sheet
- Extruded polystyrene insulation board
- ParaFlex system
- Roof deck

**Warm Roof**
- Tapered or uniform polyurethane insulation adhered to base with Radmat adhesive layer
- Self adhesive vapour barrier
- Roof deck

**Green Roof**
- Pre-grown roof garden mat
- Radmat 100% recycled green growing medium
- G12 filter membrane
- Radmat D25 water retention and drainage board
- Min-K thermal sheet
- Extruded polystyrene insulation board
- ParaFlex system
- Roof deck

**Parapet Detail**
- Extruded polystyrene cementitious faced insulating board
- Paviors and ballast margin
- Roof deck

**Upstand Detail**
- Extruded polystyrene cementitious faced insulating board
- Paviors and ballast margin
- Roof deck

**Outlet Detail**
- Gravel guard
- Paviors and ballast margin
- Min-K thermal sheet
- Extruded polystyrene insulation board
- ParaFlex system
- Drainage outlet
- Roof deck
### PRODUCT DATA

**Product Data**

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Details</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal Primer*</td>
<td>20 kg drum</td>
<td>400 grams/m²</td>
<td>50 m²</td>
</tr>
<tr>
<td>Klin Dried Sand</td>
<td>25 kg bags</td>
<td>1 kg/m²</td>
<td>25 m²</td>
</tr>
<tr>
<td>ParaFlex**</td>
<td>20 kg drums</td>
<td>2.5 kg/m²</td>
<td>8 m²</td>
</tr>
<tr>
<td>ParaFlex 165g Fleece</td>
<td>50m x 1050mm</td>
<td>165 grams/m²</td>
<td>52.5 m²</td>
</tr>
</tbody>
</table>

* 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.

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**Key**

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

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**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

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**Suitable for integration with other Radmat products**

www.radmat.com
Also available from Radmat

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

**MedO**
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.

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