

WARM ROOF: PROTEUS PRO-FELT® 'ULTIMA-PLUS'
FIREGUARD (BUR)
ONTO PLYWOOD ROOF DECKS



PROTEUS SYSTEM AND MEMBRANE RANGE

PROTEUS PRO-FELT® HIGH PERFORMANCE MEMBRANES

PROTEUS PRO-SYSTEM® COLD INSTALLED, SEAMLESS WATERPROOFING

PROTEUS PRO-THERM PIR WARM ROOF INSULATION

COLD MELT® BURIED/GREEN WATERPROOFING

PROTEUS HOT MELT® INVERTED/GREEN/ PODIUM DECK SYSTEMS

PROTEUS PRO-THERM XPS INVERTED ROOF INSULATION

PRO-BW® PLUS FAST CURE BALCONY WATERPROOFING



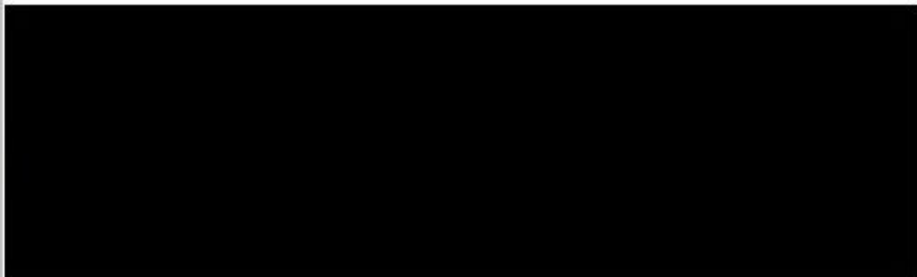
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Prepared for:	Harlow Council The Water Gardens Harlow Essex CM20 1WG  21 st May 2021
Project:	Pitched roofs at: 4, 5, 6, 11, 12, 14, 22, 32, 36, 79, 111, 133, 134, 137, 139, 140, 141, 146, 147 and 149 Canons Brook Harlow CM19
Proteus Waterproofing Contact:	
INTERNAL USE ONLY	1000

Description:

Proteus Pro-Felt® 'Ultima-Plus' Fireguard is a plastomeric, high quality modified bitumen torch-on membrane that excels as a direct waterproofing overlay to existing substrate or as a system element of the robust Proteus Waterproofing built-up roof system.

This Specification guides the user through the correct installation method of the Proteus Waterproofing high-performance **Proteus Pro-Felt® 'Ultima-Plus' Fireguard Built-Up Roof (BUR)** onto plywood roof decks in conjunction with Proteus Pro-Therm Insulation.

This document is to be read in conjunction with the separate Proteus Waterproofing Roof Condition Report dated 20th May 2021.



SPECIFICATION OUTLINE

Pro-Felt Built Up Roof system

- Remove the existing roof build-up to expose the roof deck
- Overdeck
- Prepare, repair and clean surfaces
- Prime surfaces as required
- Install Pro-Felt air vapour control
-

Insulation to main roof areas:

- Bond Proteus Pro-Therm Insulation PIR with Pro-Bond Foaming

Insulation above and 1500mm either side of party walls:

- Bond Proteus Pro-Therm Non-Combustible with Pro-Bond Foaming
- Install Pro-Felt underlay to verticals 1st layer
- Install Pro-Felt underlay to verticals 2nd layer
- Install Pro-Felt underlay to horizontals
- Install Pro-Felt mineral cap-sheet

Safe2Torch

- Pro-Felt SA Underlay Plain (air vapour control/underlay)
- Pro-Felt SA Mineral cap-sheet

Refer to the System Schedule and main Specification for full product details and usage, coverage rates.



Terraced Housing

The Canons Brook properties are a within terraces. To all the properties the existing felt covering was found to be in very poor condition and not suitable to receive an overlay. To some of the properties the survey found the insulation within the roof build-up to be wet, requiring removal and a new roof system installed.

To some of the Canons Brook properties the roof build-up is continuous and extends onto the adjoining properties therefore prior any works commencing the client must give consideration to the structural impact a partial removal of the roof system may have on the adjoining roof sections and the long-term effects of any current or future entrapped water within these sections of roof to the new roof system due to the failure of an already aged felt membrane system.

If works proceed on the basis of this specification, then it is the responsibility of the client to ensure that the existing, retained roof construction has no issues structurally or with movements which may affect the retained, adjoining sections of roof or impact on the new section of roof; or the Proteus roof system be damaged by water penetration from the adjoining properties. Proteus take no responsibility for design or any Defects arising.



CONTENTS

CODES OF PRACTICE / BUILDING REGULATIONS	7
PRELIMINARIES/HEALTH & SAFETY:	8
TORCH-ON GUIDELINES	11
PRODUCTS: PRIMERS	13
PRODUCTS: AIR VAPOUR CONTROL, INSULATION.....	14
PRODUCTS: WATERPROOFING	15
PRODUCTS: ANCILLARIES	16
PRE-WORKS	17
SURFACE PREPARATION: TIMBER / PLYWOOD ROOF DECK.....	19
PITCHED ROOFS	20
PRODUCTS: PRIMING	21
PRODUCTS: SELF-ADHESIVE MEMBRANES / TORCH-ON MEMBRANES	22
PRODUCTS: AIR VAPOUR CONTROLS / INSULATION / WATERPROOFING	23
PROTEUS PRO-FELT® STANDARD DETAILING.....	25
PRODUCTS: PROTEUS ANCILLARIES	26
CONTRACTORS / INSURANCE BACKED GUARANTEE	27

CODES OF PRACTICE / BUILDING REGULATIONS

Building Regulations:

Part L: Approved Document L1B Conservation of fuel and power in existing buildings: requires that (when re-roofing), the existing roof construction must achieve the threshold U-value of **0.35 W/m²K** or better. If the threshold value is not achieved, then the roof must be thermally upgraded to meet the current required maximum U-value of **0.18 W/m²K**.

Part B: Regulations for fire safety in residential homes, including new and existing dwellings, flats, residential accommodation, schools, colleges and offices. For these regulations to be correctly met, further information may be required to establish the appropriate insulation choice for this Specification; particularly above internal party walls and the provision of non-combustible insulation where necessary.

This Installation Specification does not automatically meet Part B as further information about the general construction is required from the client to establish the requirement regarding compartmentation to confirm Building Regulations Part B compliance.

For thermal calculations (**Part L**) non-combustible insulation compliance (**Part B**) and CTF tapered insulation schemes contact Proteus Waterproofing on:

T: 01268 777871

E: sales@proteuswaterproofing.co.uk



PRELIMINARIES/HEALTH & SAFETY:

For this project, it is the Clients responsibility to manage the project and contract and ensure suitable arrangements are in place to conform to the **Construction (Design and Management) Regulations 2015** Regulation 4.

Proteus Waterproofing will assist with the design of the flat roof / balcony system though not undertake the role of Principal Contractor. Where the project requires more than one Contractor it is the Client responsibility to appoint a Principal Designer and a Principal Contractor to conform to the **Construction (Design and Management) Regulations 2015** Regulation 5.

Before tendering, the contractor should examine the drawings and specification documents, visit the site and ascertain all local conditions and restrictions, accessibility, the full extent and nature of the work, the supply and conditions affecting labour and the execution of the contract generally. No claims arising from failure to do so will be considered.

The contractor is to take their own roof core samples to satisfy themselves regarding the existing roof build-up and to ascertain the extent of the work required in removing the existing roof covering. No claims arising from failure to do so will be considered.

All roofing materials are to be supplied by **Proteus Waterproofing** and to be fit for purpose and of the type and quality described herein. Any sub-standard materials will be rejected. No alternatives are to be used without written consent by **Proteus Waterproofing**.

All products must be stored according to the Manufacturer instructions, ideally inside a building or site container. However, if external storage is unavoidable, store clear of the ground or supporting surface and protected at all times from moisture, frost, mechanical damage etc. Rolls of waterproofing to be stored on end on a flat firm surface. Cover with a waterproof sheet allowing venting to avoid condensation build up.

The roof waterproofing work should adhere to **Building Regulations current document, Part L**. It is recommended confirmation of individual project requirements for thermal performance of the roof is sought by the client or the client's representatives from the local Building Control office before work commencement. When installing multi-layer waterproofing systems without insulation, **Proteus Waterproofing** understands that the consideration to thermal performance compliance under **Building Regulations Part L** is being dealt with separately by the client, and as requested will not form part of our recommendations.

Please contact **Proteus Waterproofing** to ascertain the correct **U Value** to be achieved.

It is the responsibility of the roofing contractor to liaise with the Main Contractor or Client concerning the possible temporary disruption or suspension of existing services to the building during the works.

Specified Exceptions:

Proteus Waterproofing specifically exclude the following, and cannot be held responsible or liable for any defects arising from;

Structural failures caused by additional loadings onto the roof, subsidence, heave or landslip to the building, fire, explosion, lightning, earthquake, storm, flood, bursting and overflowing of water tanks, apparatus or pipes, impact by aircraft and articles dropped from them, impact by vehicles, riot, civil commotion, malicious or deliberate damage, any other accidental damage, other third party installations, third party expansion joints, other third party materials including EPDM door/window seals, third party construction details not meeting relevant Codes of Practice including BS6229:2018, inherent or latent defects of the building or existing roofing system including the roof deck or the substrate, substrate movement, new or existing interstitial condensation, discharge or spillage of any third-party substance (chemical or otherwise), water entry from adjacent structures or anywhere else in the building other than from the finished system, lack of maintenance and abnormal use.

The contractor shall employ none but fully qualified, competent tradesmen and the whole of the work shall be carried out and completed in accordance with industry "Best Practice".

The contractor shall carry out the works without undue inconvenience and nuisance and without danger to occupants and users.

Following completion of the installed, specified roofing works, provision should be given to the protection of all finished surfaces from damage by subsequent building operations. Additional work will be required to return the membrane to a warrantable condition if the membrane is damaged due to inadequate protection.

Any elements that may affect the future performance of the specified system shall be reported to the client and **Proteus Waterproofing** at the earliest possible opportunity. It is the responsibility of the contractor to acquaint themselves with all relevant codes of practice referred to within the specification. **Proteus Waterproofing** take no responsibility for misinterpretation or lack of knowledge for third parties.

The works shall be carried out in accordance with the requirements of **BS 6229:2018** Code of Practice for flat roofs with continuously supported coverings and **BS 8217:2004** Reinforced bitumen membranes for roofing Code of Practice.

The roofing membrane system, insulation and any ancillary items, (roof lights, trim, outlets) included in this specification shall be obtained from:

Proteus Waterproofing
21a Sirdar Road
Brook Road Industrial Estate
Rayleigh
Essex
SS6 7XF
Tel: 01268 777871

The works shall be carried out in accordance with all current relevant legislation, and recommendations from the **Health & Safety Executive (HSE)** including **HSG33 Health & Safety** in roof work.

The Contractor is to comply with **Control of Substances Hazardous to Health Regulations 1988**. All relevant information relating to hazard assessment to be submitted with tender.

The Contractor is to allow for all necessary temporary protection to leave the site weather tight at all times.

The Contractor is to allow for the removal from the site of all debris and surplus materials, which have arisen from the execution of the works.

The Contractor is to allow for protection of the works from traffic and damage during the construction period.

Where possible any newly installed roof decking should be protected and covered from the weather to ensure drying out is not necessary. However, in the event of a roof becoming wet, it is important to ensure drying out is done safely.

There are several methods of drying out a roof that can be employed by the roofing contractor, but the most common method used due to speed and effectiveness is still by use of a gas torch. When a gas torch is to be used for drying, a thorough roof inspection of all fire related risks is essential. Where risks are identified, the operative must adopt a torch free area in line with the contractor's public liability insurance, however, it is recommended that this should be no less than 900mm.

Methods of drying within a restricted area will vary from wiping with dry rags, mops etc., then allowing natural weather conditions to finish the drying, or the use of hot air guns.

Please note that it is your responsibility as the contractor to ensure that all the recommendations detailed in this specification, and any changes or additions subsequently made, with or without Proteus' knowledge, particularly in respect of insulation design, are approved by a building control fire safety officer prior to the commencement of any works on site.

TORCH-ON GUIDELINES

It is the responsibility of the contractor to perform a thorough roof inspection of all fire-related risks and adopt a torch free area no less than 900mm from all 'at risk' areas. At risk areas are to include, but are not limited to, the following:

- Timber Upstands
- Hanging Tiles
- Thatched Roof
- Roof-light Kerbs and Upstands
- Cladding
- Lantern Roof-lights
- Confined Space
- Window Cill

Thought should be given to junctions to existing waterproofing with flammable insulation or substrate materials. These areas and existing weathering components need to be assessed and made Safe2Torch before proceeding with hot works, alternatively a torch-free solution should be considered. Attention needs to be given to concealed flammable materials where there is a chance the flame could travel and ignite particles in inaccessible areas, these include:

- Louvered vents, air ducts, intakes and outtakes
- Timber, DPC or sarking membranes beneath fixed metal capping systems
- Existing kitchen extraction plant coated in oils or fats
- Flammable wrapping to trunking/ducting
- Existing metal or plastic coping/cappings
- Existing valuable plastic curbs, domes, pipes

When working near recently applied bituminous primer or other solvent based coatings, torching needs to be avoided.

Other pre-work checks should include an assessment of the substrate - under no circumstances should a torch be applied direct to a timber roof deck or timber upstands, including timber fillets, even if the substrate has been treated with bituminous primer. A self-adhesive base-layer or a mechanically fastened layer should be used to protect the timber substrate coming into contact with the naked flame. A gas torch should never be used directly to a timber roof deck.

Expansion joints which are filled with combustible fillers, such as foam or fibreboard, should not come into contact with high heat or naked flame.

If a membrane roof is adjoining a pitched roof with details to be completed under abutments to roof tiles and slates, the slates or tiles should be removed and a compatible torch-free product should be selected.

A compatible torch-free product should be selected for any abutments with open cavities or open perpend.

Naked flames should be avoided where there is fixed timber, plastic fascia or soffits.

If further information is required the full Safe2Torch guidelines can be found at <https://www.nfrc.co.uk/docs/default-source/campaign/safe2torch-guidance.pdf?sfvrsn=2>



PRODUCTS: PRIMERS

Products	Description
Pro-Prime® SA	Primer for Proteus self-adhesive membranes
Pro-Prime® Bitumen	Primer for Proteus torch-on membranes



PRODUCTS: AIR VAPOUR CONTROL, INSULATION

Products	Description
Proteus Pro-Felt® SA Underlay Sanded	Self-adhesive air vapour control for flame free areas
Pro-Bond Foaming	Adhesive for insulation boards
Proteus Pro-Therm Insulation PIR	Flat board insulation 1200 x 600 x 150mm
Proteus Pro-Therm Non-Combustible	Flat board insulation 1200 x 1000 x 150mm

For thermal calculations and tapered schemes contact Proteus Waterproofing on:

T: 01268 777871

E: sales@proteuswaterproofing.co.uk

PRODUCTS: WATERPROOFING

Products	Description
Proteus Pro-Felt® 'Ultima-Plus' Underlay Sanded	Torch on underlay – horizontal
Proteus Pro-Felt® 3mm Underlay Plain	Torch-on underlay – verticals 1 st layer
Proteus Pro-Felt® 3mm Underlay Plain	Torch-on underlay – verticals 2 nd layer
Proteus Pro-Felt® SA Underlay Sanded	Self-adhesive underlay for flame free areas
Proteus Pro-Felt® 'Ultima-Plus' Fireguard Mineral Capsheet	High performance torch-on capsheet
Proteus Pro-Felt® SA Mineral Capsheet Black	High performance self-adhesive capsheet for flame free areas



PRODUCTS: ANCILLARIES

Products	Description
Proteus Edge Trims	Edge Trims
Proteus Termination Bars Black	Termination Bars
Proteus Bitumen Sealant	Sealant

For ancillaries, roof-lights and roof-hatches contact Proteus Waterproofing on:

T: 01268 777871

E: sales@proteuswaterproofing.co.uk



PRE-WORKS

Description
<p>Installation Specification Validity:</p> <p>This Installation Specification is valid for a period of 12 months, after which time it is recommended a further inspection is carried out in case changes require amendments to the proposed Specification. Should a site inspection by Proteus Waterproofing not have been carried out, this is to be arranged prior any works commencement to confirm the Specification. The site inspection may require changes and amendments to the proposed Specification. Any measurements stated in this document are approximate and not to be used for tendering. The tender document or Client are to be consulted to confirm the areas of work to be quoted.</p> <p>The Contractor is to carry out their own investigations, core sampling, confirming detailing etc. to confirm this Specification is suitable.</p>
<p>Hybrid Roofs: Existing Insulation Beneath the Roof Deck</p> <p>This thermal calculations for this Specification assume no existing insulation is present between the ceiling and the roof deck. Investigations must be carried out to confirm this is the case. If insulation is present between the ceiling and the roof deck it may be necessary to remove this to prevent damage from interstitial condensation and conform with BS 6229:2018. Contact Proteus Waterproofing for revised thermal calculations and condensation risk analysis.</p>
<p>Substrate:</p> <p>This Document refers to the installation of PROTEUS PRO-FELT® 'ULTIMA-PLUS' FIREGUARD BUR onto new plywood roof decks.</p>
<p>Removing the Existing Roof Coverings:</p> <p>The existing roof covering are to be carefully removed and disposed of, exposing the existing roof deck.</p>
<p>Upstands, Skirtings, Edge Details, Outlets etc.</p> <p>Carefully remove the existing waterproofing from upstands, skirtings, edge details, outlets, etc. and prepare ready to receive the new waterproofing system.</p>
<p>Aerials, Satellite Dishes, Telecommunications:</p> <p>The Contractor is to establish if equipment emitting harmful radiation is present on the roof. Where these impede works, temporarily remove to allow access.</p>
<p>General Building Works:</p> <p>Any associated building works, such as cutting chases, brick-work repairs, mortar joint repairs, rendering etc. should be carried out prior the installation of the roof system.</p>
<p>Up-Stands, Skirtings, Abutments:</p> <p>All up-stand must conform to BS:6229:2018 and be a minimum 150mm high from the finished waterproofing level.</p>
<p>External Gutters:</p> <p>Inspect the external gutters to ensure they are sound and of a suitable capacity. Replace if required. Inspect all down pipes, to ensure free flow of waste-water. It is recommended drainage pipes are inspected using CCTV equipment.</p>

Description
Detail Integrity: Check integrity of the existing substrate, skirting's and collars. Other details should be cut back if required, making sure the substrate is sound and dimensionally stable. All protrusion pipes should be extended where necessary to accommodate new waterproofing level.
Edge Details: Existing defective trims, lead flashings and up-stand details must be removed and renewed ready to receive the new items.
Chases: Cut out all new chases ensuring that the new chase is W15mm x D25mm deep. All chases must be cleaned and dust free prior to coating.
Damp Proof Courses, Cavity Trays: Do not install the new waterproofing above damp proof courses or cavity trays and raise these where required. The new waterproofing membrane is to be suitably terminated a minimum of 150mm high from the finished roof level or underneath the DPC / Cavity Tray with a suitable flashing detail.
Roof Openings: At the end of each day ensure all openings are sealed to prevent water ingress. Identify redundant penetrations, which should be removed and disposed of. Any opening are to be sealed to prevent water ingress.
Defective Timber/uPVC: Remove and replace any defective timber to the existing roof such as timber decks, structural joists, timber fillets, barge boards, fascias hard edges etc.
Repair Tape: ALL self-adhesive 'flashing' tape which has previously been used as a means of repair must be completely removed. Note: Substrate defects may well be hidden by such tapes.
Angle Fillets: Install a suitable angle fillet to all junctions at horizontal to vertical without exception. All preliminary work, including formation of up-stands, curbs, gutters, sumps, chases, expansion joints etc. and fixing of battens, fillets, anchoring plugs/ strips, etc. is complete and satisfactory.
Drip Battens: Install new 25mm x 50mm treated timber battens, mechanically fixed at 300mm centres.

SURFACE PREPARATION: TIMBER / PLYWOOD ROOF DECK

Description
<p>For Timber, Plywood Roof Decks:</p> <p>Inspect the roof deck, if the roof deck is wet remove and replace with new 18mm WPB plywood/OSB3 Board conforming to BS EN 1995.</p> <p>The roof deck is constructed from fragile material, screeded woodwool slab. Inspect the existing roof deck and over-deck with new 18mm WPB plywood/OSB3 Board conforming to BS EN 1995.</p> <p>If the existing roof deck is wet, remove and replace with new 18mm WPB plywood/OSB3 Board conforming to BS EN 1995.</p> <p>Design and fixing specification of the new plywood decking must be confirmed to the contractor by an independent structural engineer appointed by the Client.</p>
<p>Party Walls: Building Regulation Part B</p> <p>Identify the location of the party walls to allow the accurate installation of PROTEUS PRO-THERM® NON-COMBUSTIBLE insulation above and 1500mm on each side of the party walls.</p>
<p>Abutment to Adjoining Roof:</p> <p>Where the roof system abuts the adjoining property's roof, a new galvanised steel angle is to be fixed into the roof deck.</p> <p>Refer to detail D_50 PF 04_200121.</p>
<p>Clear/Prepare Surfaces:</p> <p>Remove, scrape and sweep away bulk of contamination. Do not block drainage system with debris. All substrates must be dry before applying the system.</p>
<p>Other Surfaces:</p> <p>Substrates must be sound, dimensionally stable, clean and free of loose matter and excess water. Inspect the surface for defects such as delamination blisters and ridging. All surfaces are to be level ready to accept the new insulation boards. All preliminary work, including formation of up-stands, curbs, box gutters, sumps, grooves, chases, expansion joints etc. and fixing of battens, fillets, anchoring plugs/ strips, etc. is complete and satisfactory.</p>

PITCHED ROOFS

Support Battens to Pitched Roofs:

To conform to **BS 6229:2018** the Contractor is to establish the pitch of the roof and install treated timber stop battens to support the insulation boards which are to be mechanically fixed into the roof deck with suitable non-corroding screw fastenings. As guidance, the stop battens should be the same thickness as the insulation board and installed at the:

Base of the slope

Verge / gable ends

Top of the slope and other locations as required to suit setting out of the membrane retention.

Design and fixing specification of the new plywood decking must be confirmed to the contractor by an independent structural engineer appointed by the Client.

Batten centres for pitched BUR roofs

For pitched and sloping roofs over 5°, refer to **Proteus Waterproofing** for a detailed Specification.

Pitch μ	Length of pitched run M	Membrane length used M	Batten centres M
5° to 25°	Up to 8.0	8.0 (no head laps)	Ridge and eaves only
5° to 25	Over 8.0	4.0	4.0 (plus ridge and eaves)
25° to 60°	Any	4.0	2.0 (plus ridge and eaves)
60° to vertical	Any	2.5	1.25 (plus ridge and eaves)



PRODUCTS: PRIMING

PROTEUS PRO-FELT® TORCH-ON MEMBRANES:

To surfaces to receive torch-on membranes apply **PRO-PRIME® BITUMEN** @ a minimum rate of **0.20ltr/m²**.

PROTEUS PRO-FELT® SELF-ADHESIVE MEMBRANES:

To surfaces to receive self-adhesive membranes apply **PRO-PRIME® SA** @ a minimum rate of **0.20ltr/m²**.

Note: PROTEUS PRO-THERM INSULATION boards do not require to be primed to receive **PROTEUS PRO-FELT® UNDERLAYS**.



PRODUCTS: SELF-ADHESIVE MEMBRANES / TORCH-ON MEMBRANES

SELF-ADHESIVE MEMBRANES SIDE LAPS, END LAPS and SAFE2TORCH FOR FIRE RISK AREAS:

PROTEUS PRO-FELT® torch-on air vapour controls, underlays and mineral cap-sheets are technically suitable to be used, where the contractor deems it safe to do so. Where there is a risk of combustion **PROTEUS PRO-FELT® SA** membranes are to be used to remove the use of open flame. Where the membrane is to be installed directly to combustible substrates such as plywood, timber etc. or near combustible materials such as insulation behind cladding, up-stands under pitched tiled roofs etc. then torch-on membranes must not be used.

Install the **PROTEUS PRO-FELT® SA** membrane onto the primed substrate or already in-situ **PROTEUS PRO-FELT®** air vapour control/underlay/capsheet up to the termination on the up-stand and fully seal by continuing by a minimum of **200mm** onto the horizontal. All end and side laps are **HOT-AIR** activated to produce a homogeneous bond and produce a bitumen extruded bead from the lap.

Side laps must be a minimum of **75mm** with end laps a minimum of **100mm**. Side Laps are to be a minimum of **80mm** and head laps are to be a minimum of **100mm** to ensure a watertight seal. Minimum **80mm** side laps and **100mm** head laps are required.

Air Vapour Control and Underlay:

In fire risk areas install the self-adhesive **PROTEUS PRO-FELT® SA UNDERLAY SANDED**.

Cap-sheet:

In fire risk areas install the self-adhesive **PROTEUS PRO-FELT® SA MINERAL CAP-SHEET**.

Note: For further clarification refer to the **NFRC 'Safe2Torch' Guidelines**.

TORCH-ON MEMBRANES SIDE LAPS, END LAPS and BITUMEN BLEED:

PROTEUS PRO-FELT® TORCH-ON MEMBRANES. All side laps and end laps are to be fully torched on and sealed. With all **PROTEUS PRO-FELT® MEMBRANES** ensure a **5mm** bitumen bleed is achieved. Side Laps are to be a minimum of **80mm** and head laps are to be a minimum of **100mm** to ensure a watertight seal. Minimum **80mm** side laps and **100mm** head laps are required.

PITCHED ROOFS: RIDGE, HIP CAPPING

A detail capping is to be formed separately with the **PROTEUS PRO-FELT® MINERAL CAPSHEET** along the length of the ridge and hip, fully bonded, equidistant and a minimum **150mm** on each pitch.



PRODUCTS: AIR VAPOUR CONTROLS / INSULATION / WATERPROOFING

SELF-ADHESIVE AIR VAPOUR CONTROL: TIMBER / PLYWOOD

Nailed Layer Not Required. Install a layer of **PROTEUS PRO-FELT® SA UNDERLAY SANDED** directly to the primed substrate. This is to be adhered down onto the roof surfaces via the removal of the release film. The air vapour control is to be continued onto the full skirtings, edge details etc. and must be folded onto the top of the insulation board and sealed, compliant with **BS 5250: 2011 A1 + 2016**.

ABUTMENT TO ADJOINING ROOF:

Continue the **PROTEUS PRO-FELT® SA UNDERLAY SANDED** onto the newly fixed galvanised steel angle and onto the adjoining roof deck and by a minimum of **200mm** and then step up and lap onto the adjoining property waterproofing system, lapping on by **500mm**.

Refer to detail **D_50 PF 04_200121**.

FIRE COMPARTMENTATION INSULATION ATTACHMENT:

PROTEUS PRO-THERM® INSULATION PIR 1200 x 600 x 150mm

PROTEUS PRO-THERM® NON-COMBUSTIBLE 1200 x 1000 x 150mm

Immediately place **PROTEUS PRO-THERM® INSULATION** boards into foamed **PRO-BOND FOAMING** applied @ **50ml/m²** (field application) @ **100ml/m²** (perimeter zones) (see separate Data Sheet). Do not slide boards into place.

Do not allow the adhesive to 'skin' before installing insulation boards. (Stagger boards in a brick board format). Sumps to outlets and chutes must be a minimum of **500mm x 500mm** square, and **50mm** lower than the main insulated area. Hard Edges are to be fixed around the sump. **NOTE:** Undulating, rough surfaces may require an expanding adhesive for a secure bond. Double stacked boards to be bonded together with **PRO-BOND FOAMING**.

BUILDING REGULATION PART B: PARTY WALLS FIRE COMPARTMENTATION

To comply with Building Regulations Part B onto combustible roof decks install **PROTEUS PRO-THERM NON-COMBUSTIBLE** insulation above and **1500mm** on each side of the party walls. Identify the location of the party walls to allow the accurate installation of **PROTEUS PRO-THERM NON-COMBUSTIBLE** insulation above and **1500mm** on each side of the party walls.

HARD EDGES:

Hard edge details must be installed to form the edge against the insulation boards where this is susceptible to damage, when creating a change of direction to the waterproofing including forming internal gutter detail.

FIRE COMPARTMENTATION: Galvanised steel angles should be used instead of timber.

Night/Day Joints:

Extend **PROTEUS PRO-FELT® SA UNDERLAY SANDED** from the top of **PROTEUS PRO-THERM INSULATION** onto the roof substrate and all details/skirtings etc. by a minimum of **100mm** to form a watertight seal.



HORIZONTALS TORCH ON UNDERLAY:

By torch on method install a layer of **PROTEUS PRO-FELT® 'ULTIMA-PLUS' UNDERLAY** directly to the **PROTEUS PRO-THERM INSULATION** boards.

VERTICALS REINFORCING TORCH ON UNDERLAY:

By torch on method install a layer of **PROTEUS PRO-FELT® 3mm PLAIN UNDERLAY** directly to the primed full skirtings, edge details etc. and by a minimum of **200mm** onto the horizontal underlay.

ABUTMENT TO ADJOINING ROOF:

Continue the **PROTEUS PRO-FELT® 3mm PLAIN UNDERLAY** onto the adjoining property **PROTEUS PRO-FELT® SA UNDERLAY SANDED** lapping on by **500mm**.

Refer to detail **D_50 PF 04_200121**.

VERTICALS TORCH ON UNDERLAY:

By torch on method install a 2nd layer of **PROTEUS PRO-FELT® 3mm PLAIN UNDERLAY** directly to the primed full skirtings, edge details etc. and by a minimum of **200mm** onto the horizontal underlay.

HORIZONTALS TORCH ON MINERAL CAPSHEET:

Install by torch on method a layer of **PROTEUS PRO-FELT® 'ULTIMA-PLUS' FIREGUARD MINERAL CAPSHEET** onto the already installed underlay.

ABUTMENT TO ADJOINING ROOF:

Continue the **PROTEUS PRO-FELT® 'ULTIMA-PLUS' FIREGUARD MINERAL CAPSHEET** onto the adjoining property **PROTEUS PRO-FELT® 3mm PLAIN UNDERLAY** lapping on by **500mm**.

Refer to detail **D_50 PF 04_200121**.

VERTICALS TORCH ON MINERAL CAPSHEET:

On the skirting install by torch on method a layer of **PROTEUS PRO-FELT® 'ULTIMA-PLUS' FIREGUARD MINERAL CAPSHEET** onto the underlay up to the termination detail on the up-stand. Fully seal by continuing the vertical mineral capsheet by a minimum of **200mm** onto the horizontal mineral capsheet.



PROTEUS PRO-FELT® STANDARD DETAILING

Description
For detail drawings please contact Proteus Waterproofing on: T: 01268 777871 E: sales@proteuswaterproofing.co.uk
Chases: Dress the waterproofing into the prepared chase. Seal the chase with PROTEUS SEALANT once the coating has fully cured.
Flashings: Dress the PROTEUS PRO-FELT® under the new Ubiflex flashing.
Termination Bars: For upstands, skirtings etc. up to 250mm in height only. Bed a PROTEUS TERMINATION BAR into PROTEUS BITUMEN SEALANT and mechanically fix the bar at 300mm centres.
Eaves Details: Dress PROTEUS PRO-FELT® onto the underside of the overhang. Seal to a minimum height of 150mm above the finished waterproofing level. Seal with PROTEUS BITUMEN SEALANT . Bed a PROTEUS TERMINATION BAR into PROTEUS BITUMEN SEALANT and mechanically fix the bar at 300mm centres.
Up-Stands, Skirtings: Dress the waterproofing tightly under the cills/termination detail. Seal with PROTEUS BITUMEN SEALANT . All up-stand must be a minimum 150mm high from the finished waterproofing level.
Perimeter Drip Detail: Form a welged drip edge with treated timber.
Pipes and Protrusions: Install the PROTEUS PRO-FELT® system onto the prepared and primed protrusions 150mm above the finished waterproofing level. Sleeve the pipe with new Code 5 Lead.
Hot Flues: To hot flues/exhaust pipes install a galvanised steel sleeve, allowing a 50mm void between the sleeve and the pipe, which is to be filled with non-combustible insulation. A galvanised steel cowling is to be installed to cover.
Change of levels: Dress the waterproofing system specified up and over the change of level step.

PRODUCTS: PROTEUS ANCILLARIES

Description
Proteus Edge Trims
Proteus Termination Bars Black
Proteus Bitumen Sealant

For Proteus Roof-lights and Proteus roof-hatches contact Proteus Waterproofing on:

T: 01268 777871

E: sales@proteuswaterproofing.co.uk



CONTRACTORS / INSURANCE BACKED GUARANTEE

Description
Photographic Evidence: The Contractor is to record with photographic evidence the surface preparation, priming and each layer installed, standard detailing and terminations, non-standard detailing and terminations to be approved by Proteus Waterproofing.
Inspection: The roof may be inspected by PROTEUS WATERPROOFING , and progress reports undertaken to review the work being carried out as per the Proteus Specification. The works may benefit from an inspection to review the general competence of operatives and standard of workmanship. Safe access must be available for any inspection to be carried out.
Proteus Snag List: A snagging list may be produced to address any areas noted that are sub-standard or not conforming with the requirements of the specification.
Final Sign off: At the completion of the specified project, works may be signed off by PROTEUS WATERPROOFING to generally review the scope of the Proteus Specification and the final Finished System.
CONTRACTORS: PROTEUS WATERPROOFING Contractors must have been assessed in the specified system. The Contractor must offer reasonable notice to Proteus Waterproofing of commencement of the works if any inspections are to be scheduled throughout the works program. The Guarantee can be issued following a final inspection of the works, as carried out by the Contractor. The Contractor is to request any final inspection on practical completion of the contract. All snagging and corrections must be made prior the final inspection.
PROTEUS INSURANCE BACKED GUARANTEE: A 25 Year Proteus Insurance Backed Guarantee is required providing 25 years of cover with insurance backing for the first 12 years; subject to the current terms and conditions of the guarantee which are available separately upon request. The installation of the Finished System within the Proteus Specification shall be carried out by a competent Contractor. Note: The insurance is an independent pre-paid policy supplied by an FCA regulated provider.