BUFR System Guidance Document

SPECIFICATION

All construction detailing and specification should conform to UK Building Regulations.

Relevant Codes of Practice and British Standards, should also be used for guidance, in particular it is recommended that reference is made to the relevant parts of:

BS 8747:2007
- Reinforced bitumen membranes (RBMs) for roofing. *Guide to selection and specification.*

BS 8217:2005
- Reinforced bitumen membranes for roofing. *Code of practice.*

BS 6229:2018
- Flat roofs with continuously supported flexible waterproof coverings. *Code of practice.*

BS 5250:2021
- Management of moisture in buildings. *Code of practice.*

Work undertaken on flat roofs should be in line with Building Regulations and is likely to be reportable to Local Authority Building Control (LABC); it is advisable that any proposed works are discussed with the LABC prior to commencement, unless the installing contractor is a member of the Competent Roofer Scheme. www.competentroofer.co.uk

Where required by building warranty providers i.e. NHBC, LABC, etc. installers and those undertaking specifications should seek guidance from Technical Standards as issued by the provider in addition to the above.

Specifiers should also seek the guidance of the National Federation of Roofing Contractors (NFRC), with particular reference to their '**Safe2Torch**' campaign.

DESIGN CONSIDERATIONS

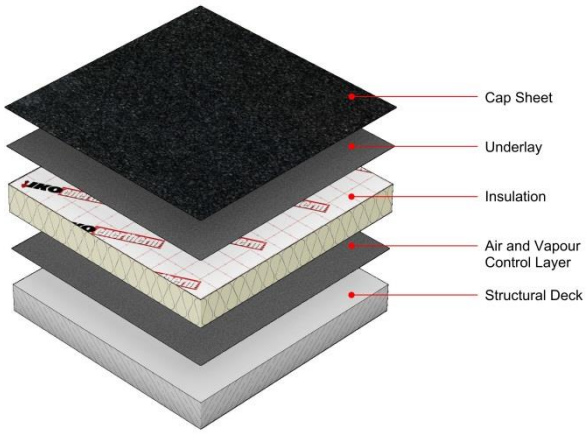
CONFIGURATION

The construction of the roof deck and ceiling has an important effect on the behaviour of the waterproofing material on top.

The building industry uses the terms 'warm', 'cold', and 'inverted' to describe the three different types of roof constructions.

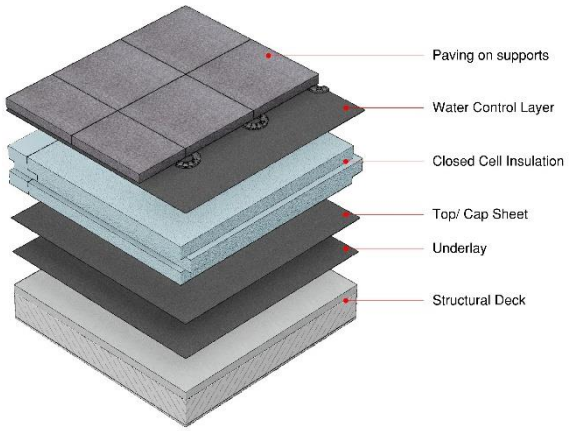
TYPICAL WARM ROOF

Most roofs require insulation and current practice is for insulation to be placed above the roof deck with waterproofing positioned over, often referred to as a 'warm roof'. No void ventilation is required with this design.



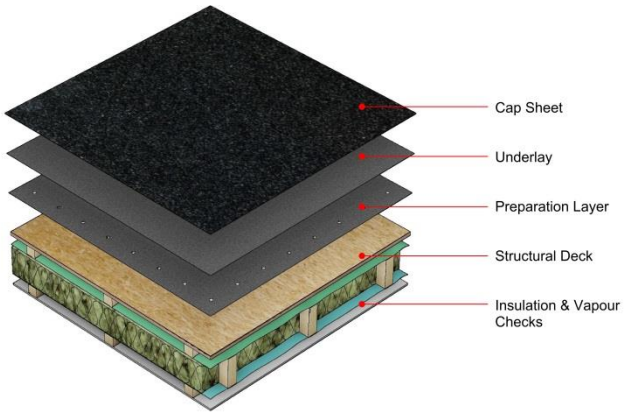
TYPICAL INVERTED ROOF

Another approach is for insulation and finishes to be placed above both the roof deck and the waterproofing. The insulation must be moisture tolerable (closed cell). Like with warm roofs, no void ventilation is required with this design.



TYPICAL COLD ROOF

Alternative practice is to install the insulation within the voids below the roof deck. Often referred to as a 'cold roof', this type of arrangement must include ventilation to the void areas to remove the risk of condensation.
It is advisable that cold roof design is ventilated at the rates prescribed within the aforementioned British Standards and Approved Codes of Practice.



ASSOCIATED MATERIALS

Dependant on system arrangement, IKO offers several material solutions to cover the multiple layers of a typical built-up bituminous roofing system as illustrated above. For guidance on selection of these layers, please refer to the **IKO Flat & Pitched Roofing Guide available to download at www.ikogroup.co.uk**

STRUCTURAL DECKS

It is essential that the deck is suitably fit for purpose and is structurally adequate in supporting the waterproofing system and any associated loadings.
For deck selection and determining suitability, the guidance of the relevant Approved Codes of Practice should be sought.

FALLS AND DRAINAGE

To reduce the effect of water ponding on the roof finish, a minimum finished fall of **1:80** should be achieved; however designs should be to 1:40 to take into account any inaccuracies within the deck construction.

AIR & VAPOUR CONTROL

It is essential that roofing solutions include layers to control and inhibit the movement of vapour into the building fabric. For further guidance please contact the IKO Technical services department.

PRE-APPLICATION

MATERIAL HANDLING

Checking: Material should be checked to ensure that they conform to the project specification.
Handling: Material should be unloaded and handled with care to avoid damage.
Site Storage: Material should be stored on end on a firm, clean base protected from direct sunlight.

PRIOR TO COMMENCEMENT

Application must always follow good, safe working practice.

Prior to commencing works, it is advisable to consult Health and Safety Executive Guidance documents such as HSG33 'Health and Safety in Roof Work', irrespective of levels of competence, to ensure all works are being planned and undertaken in a safe, pragmatic manner.

Before commencement of the roofing works, the roofing contractor should ensure that the surfaces to receive the new waterproofing system are sound and capable of accepting the imposed loading of the new waterproofing system and its installation.

The surface to which the waterproofing membrane is to be installed must be clean, dry and fit for purpose.
Existing substrates should be assessed by a competent roofer or suitably qualified professional to ascertain their suitability in relation to structural strength, falls and drainage provision.

SETTING OUT CONSIDERATIONS

When setting out the field area, the rolls of material should always be laid in the same direction, never cross bonded.

Top layers should be arranged to achieve a staggered bond with the preceding underlayers with half width layers being used to maintain bond patterns where necessary.

The underlay sheets should be overlapped to form min. 75mm side laps and 75mm end laps. The cap sheet should be overlapped to form min. 75mm side laps and 100mm end laps. Ends laps must be staggered so that they do not occur in the same position in adjacent sheets or underlying sheets.

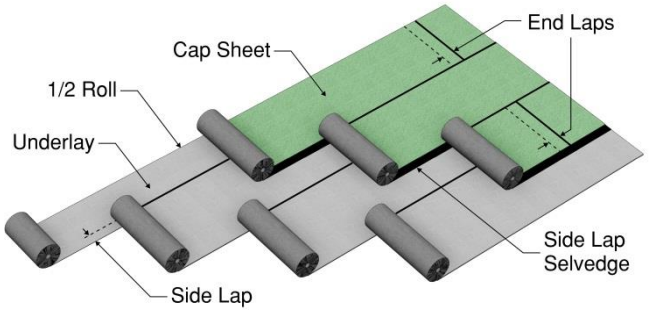


Figure 1 Setting Out to Staggered Laps

CAUTIONS

If application proposals include the use of hot air guns, users should be competent, conversant and capable of using such items.

Care must be taken when hot air guns in close proximity to combustible materials, decorative coatings and heat sensitive materials.

Torch applied materials should only be applied by those competent, conversant and capable of undertaking roofing works safely and that are experienced in the use of roofing torches and procedures.

Torch applied membranes should not be used in close proximity to combustible materials, decorative coatings and heat sensitive materials. Roofing contractors should be fully conversant with the guidance of the National Federation of Roofing Contractors (NFRC) '**Safe2Torch**' campaign.

SYSTEM SELECTION & APPLICATION

With the different types of products used within system build-ups and varying methods of application available, it gives rise to numerous possibilities for complete installations. Some of these build-ups require very specific products to work effectively, others can vary; with this in mind please see selection tables at the back of this document to consider/ determine a build-up to suit your needs.

PRODUCT APPLICATIONS

PRIMERS

Primers are required for all constructional substrates receiving a fully bonded or partially bonded sheet membrane and over insulation board prior to receiving system underlay in certain situations, see table 1.

Primers should not be thinned or mixed with other products. Membranes and the substrate to be bonded must be clean and dry and the primer should be applied with brush or roller at an even coverage above the minimum application temperature (coverage rates and min. temperature as per specific product datasheet). Primers must only be used in dry weather conditions; no moisture must be enclosed between the primer and membrane layer. A brush should be used to ensure the primer is applied fully into corners and areas of detailing.

Porous surfaces may require an additional full coat of the product but be aware that over application of the primer may result in longer drying times.

Drying times as per specific product datasheet but note at higher temperatures the primer may dry faster, with lower temperatures slowing this drying process.

The proceeding specified membrane should be applied as soon as the primer is dry.

If the surface of the application becomes contaminated the surface must be swept clean and primer reapplied.

Self-adhesive primer/ bonding agent that has been left for more than 4 hours before installing a self-adhesive membrane should be swept clean and reapplied.

Information regarding disposal of empty containers or containers with residual liquid can be found within the relevant sections of the IKO Material Safety Data Sheet.

PREPERATION MEMBRANES

Preparation membranes vary and are required in some situations to either protect or provide a partial bond of the system to the substrate;

Nailing layers

Used for hot bonded systems (torch-on or pour and roll applications) over timber decks.

Overlaps should be minimum 50mm (side laps) and minimum 75mm (end laps) that are fastened using min 20mm long extra-large headed galvanised clout nails.

Across the general area nail positions should be staggered at a maximum distance of 150mm, and at perimeter and openings within the roof areas all side and head laps should be fastened at 50-75mm centres.

Venting layers

Needed as a first layer within a reinforced bitumen membrane built up roofing system for hot bonded systems (torch-on or pour and roll) over non-combustible substrates in cold roof applications to provide a partial bond and prevent blistering of the newly installed system.

All venting layers are loose laid with the sanded surface uppermost, side laps vary from 50-75mm (see specific product datasheet) and end laps are butted. A partial bond is achieved by application of the following membrane. The preparation layer should be stopped 450mm short of all perimeters to allow full bonding at perimeter edges.

AIR & VAPOUR CONTROL

Air & Vapour Control Layers (AVCLs) are used in warm roof build-ups to prevent airborne moisture from within the structure passing though the building fabric into system and causing premature failure.

Self-Adhesive

Application of a self-adhesive AVCL involves the removal of a release film to the underside of the roll and a second release film on the selvedge during the installation process.

When removing the release film, progressively advance the roll whilst applying even downward pressure using a weighted roll bar to bond the underlay to the substrate ensuring no air is trapped.

When approaching an angle where the sheet will change from a horizontal to a vertical configuration, use a seam or penny roller to press the membrane firmly into position into the angle. Provide heat activation to all changes of direction of the membrane to ensure a full bond is achieved throughout the detail.

Fully bond the AVCL to the primed substrate to achieve 75mm minimum side laps and 100mm minimum end laps. Finished at perimeters, roof edges, abutments, upstands, kerbs, and penetrations to enable linking with the waterproofing system by a minimum of 50mm.

All side and end laps must be hot air welded to facilitate a bead of bitumen exuded from the lap. Torching and scraping of lap joints are not permitted.

When installing on a profiled metal deck, all laps must be fully supported and sealed. Metal profiled decks must provide a minimum 50% bond for the Air and Vapour Control Layer, or the metal deck must be over boarded with 18mm OSB/3 or plywood.

INSULATION/ INSULATION ADHESIVE

There are several types of insulation boards available, the determination of which is influenced by the application method of the proceeding waterproof membranes. Irrespective of specification, all IKO enertherm Insulation Boards in warm roofing applications can be adhered onto the AVCL using high foaming **IKOpro PU Adhesive for Insulation**.

All insulation boards must be protected from moisture prior to installation by storing off the ground and covered with a tarpaulin.

Boards must be in good condition, dry, well fitted, and stable.

Any hollows, depressions, deflections, back falls etc. found in the deck either before or after stripping should be rectified prior to installation of the insulation.

All upstands, kerbs, sills, thresholds, cavity trays and other associated details must be prepared to accommodate the insulation thicknesses and proposed roof build up.

Surfaces must be clean, dry and free from dirt, debris, grease and dust. Thoroughly sweep the area, prior to the application of the adhesive and insulation.

The adhesive is poured directly from the tin, should not be allowed to pool, and coverage would be approximately 30-35m²/tin, depending on surface porosity. Coverage rate should be doubled to all perimeter and exposed edges and openings.

Apply the adhesive in a continuous 15mm minimum width bead at 200-300mm centres, doubling up this coverage rate at all perimeter edges to ensure a minimum of 4 beads per 1200 x 1200mm board at max 300mm centres to main roof, and minimum of 8 beads per 1200 x 1200mm board at 150mm centres to perimeter edges, corners and openings.

Locate the insulation board into the wet adhesive and apply even pressure to ensure full contact with the adhesive. Do not stand on the boards or allow any application of waterproofing layers to the insulation board until this cure has been achieved.

Boards should be located into the wet adhesive before it starts to skin over. About 10 minutes after laying, check that boards have not uplifted due to the foaming action of the adhesive. The adhesive must be allowed to fully cure for a minimum of 15 minutes before undertaking any further works.

On inclined roofs apply additional insulation stops for anchoring the waterproofing system against slippage, at intervals according to the slope as necessary.

Note: ensure the substrate is dry when applying the adhesive, wet surfaces will create a barrier between the substrate and adhesive and therefore reducing the adhesion and bond strength.

Not suitable for bonding foil faced insulation boards to each other. For this use, please refer to IKOpro PUMA Zero adhesive.

UNDERLAYS/ CAP SHEETS

These product types combine to form the primary waterproofing for both warm and cold reinforced bitumen membrane systems. Underlays are applied as an intermediate layer over insulation (warm roof) or directly over preparation membranes/ primed decks (cold roof). In turn the cap sheet is applied directly over the underlay.

Where primer is required prior to underlay installation (as denoted by table 1) follow ‘General Product Application’ guidance for primers.

Different underlays and cap sheet systems offer varying levels of guarantees/ life expectancies and have different methods for application (see product datasheets for specifics).

In terms of application for these products see below;

Self-Adhesive Membranes

Ensure the substrate is free of dust, debris or moisture that will impair the bond.

The specified underlay is to be applied as soon as possible after the primer/ bonding agent is completely dry.

Install with min. 75mm side and min. 100mm end laps by removing the release film and progressively advance the roll whilst applying even downward pressure using a weighted roll bar to bond the underlay to the substrate ensuring no air is trapped.

All laps must be hot air welded and pressure rolled ensuring a visible bead of bitumen is exuded from all side and end laps.

No gas torches are to be used for the installation of self-adhesive membranes.

No back laps are to be formed against falls

In insulated build-ups, the underlay should link with the vapour control layer at detail works.

Torch-on Membranes

Ensure the substrate is free of dust, debris or moisture that will impair the bond.

Install with min. 75mm side and min. 100mm end laps by progressively advancing the roll whilst applying even downward pressure using a weighted roll bar to bond the underlay to the substrate ensuring no air is trapped.

The membrane must be applied by using the torch-on application method, ensuring that a constant flow of bitumen is maintained across the whole width of the roll and that a bead of bitumen (5-15mm) is exuded from all side and end laps to demonstrate a good seal has been achieved.

No back laps are to be formed against falls

In insulated build-ups, the underlay should link with the vapour control layer at detail works.

Pour & Roll Membranes

Ensure the substrate is free of dust, debris or moisture that will impair the bond.

Install with min. 75mm side and min. 100mm end laps by progressively advancing the roll whilst applying even downward pressure using a weighted roll bar to bond the underlay to the substrate ensuring no air is trapped.

The membrane should be fixed with a full bond of **IKO Easy Melt Bonding Bitumen**. All laps are to exude a 5-15mm bead of **IKO Easy Melt Bonding Bitumen**, from the joint to ensure a watertight seal.

Side and end laps should be arranged as per the 'Setting Out' section of this guidance.

Any areas of detailing to other substrates i.e. masonry upstands, should be fully primed with **IKOpro Quick Dry Primer** at the respective rates stipulated for that product.

No back laps are to be formed against falls.

In insulated build-ups, the underlay should link with the vapour control layer at detail works.

Cold Adhesive Membranes

Ensure the substrate is free of dust, debris or moisture that will impair the bond.

Install with min. 75mm side and min. 100mm end laps by progressively advancing the roll whilst applying even downward pressure using a weighted roll bar to bond the underlay to the substrate ensuring no air is trapped.

When a cold adhesive membrane is applied as an underlay to primed deck it should achieve a partial bond using strip bonding methods. Cap sheets should be fully bonded.

Both instances would use **IKOpro High Performance Roofing Felt Adhesive**, applied as per the relevant product guidance. Side and end laps should be arranged as per the 'Setting Out' section of this guidance.

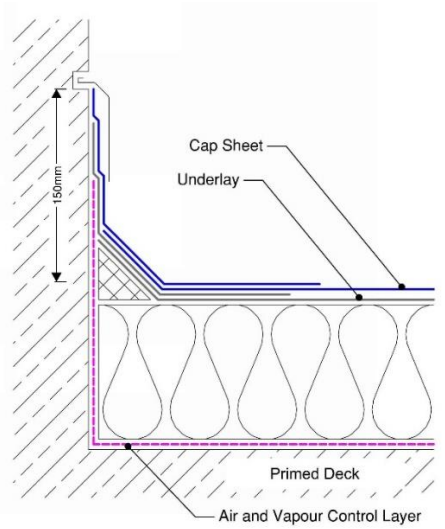
Any areas of detailing to other substrates i.e. masonry upstands, should be fully primed with **IKOpro Quick Dry Primer** at the respective rates stipulated for that product. All laps are to exude a bead of **IKOpro High Performance Roofing Felt Adhesive** from the joint to ensure a watertight seal.

DETAILING

All waterproofing detailing with underlays and cap sheets must be undertaken as seperate flashings and must be fully bonded throughout. Fillets suitable for the system installed must be provided through corners to aid application and ensure no migration of water occurs as a result of unbonded membrane through the transition.

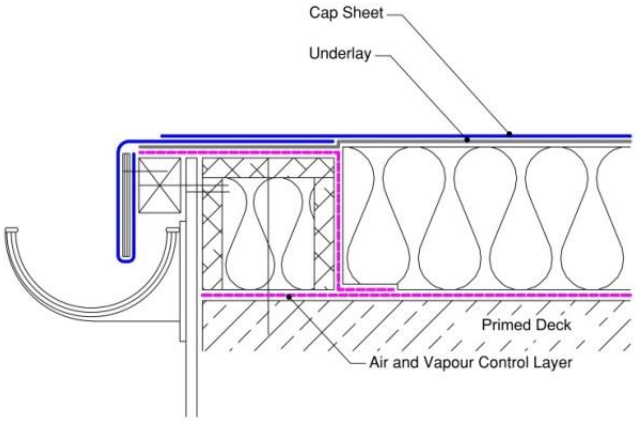
The following details show a few typical common warm roof applications. Other details are available on request, contact technical.uk@iko.com.

Upstands and skirtings – (Warm Roof)



All skirtings and upstands are to be formed as separate items using fully bonded underlay and cap sheet; the waterproofing should be at least 150mm above the level of the finished roof. Care must be undertaken not to bridge over any DPC or Cavity Tray positions.

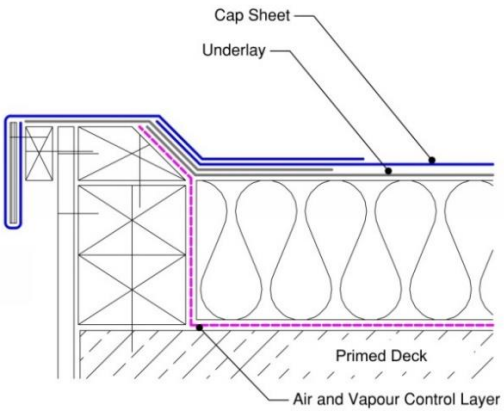
Drip edge detail – (Warm Roof)



A welted drip edge should be formed wherever drainage to an external guttering is required. A plywood former should be introduced to form the drip.

In warm roof build ups an insulated hard edge, 10mm thinner than the insulation thickness, should be incorporated.

Check kerb – (Warm Roof)



Check kerbs should be constructed to form a 50mm water check to prevent water from running over the edge incorporating a welted drip detail. In warm roof build ups a timber hard edge should be incorporated.

Other typical details are available via the IKO website, or alternatively via NFRC information sheets – www.nfrc.co.uk

POST COMPLETION

To obtain the best possible life expectancy, all flat roofs should be inspected in accordance with the requirements of BS 6229 Code of Practice for Flat Roofs with continuously supported roof coverings.

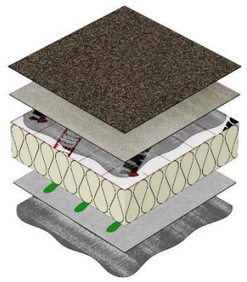
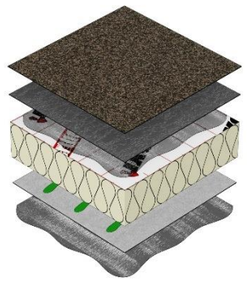
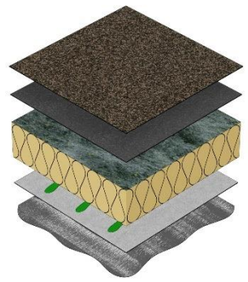
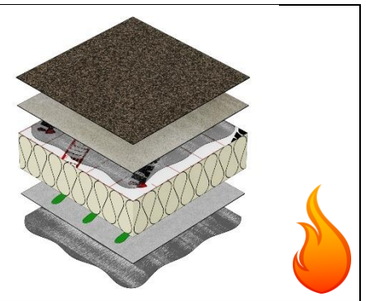
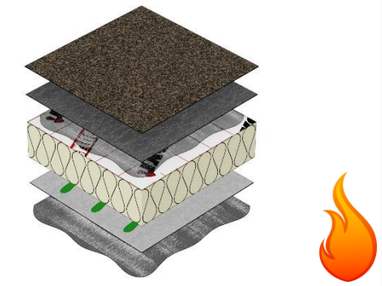
DISCLAIMER

Whilst every precaution is taken to ensure that the information given in this literature is correct and up to date it is not intended to form part of any contract or give rise to any collateral liability, which is hereby specifically excluded.

IKO reserve the right to amend and/or withdraw this document without notice.

Intending purchasers of our materials should therefore verify with the company whether any changes in our specification, application details, withdrawals or otherwise have taken place since this literature was issued.

IKO DISTRIBUTION BUR RANGE – WARM FLAT ROOFING SYSTEM OPTIONS

SBS HYBRID	SBS SELF-ADHESIVE	SBS TORCH-ON	SBS HYBRID – Broof (t4)	SBS SELF-ADHESIVE – Broof (t4)
				
DETAILING MEMBRANES	**DETAILING MEMBRANES**	**DETAILING MEMBRANES**	**DETAILING MEMBRANES**	**DETAILING MEMBRANES**
Detailing Underlays IKO Easyseal H-A Fully Bonded Underlay	**Detailing Underlays** IKO Easyseal S-A Fully Bonded Underlay	**Detailing Underlays** Same as chosen field area underlay below	**Detailing Underlays** IKO Easyseal H-A Fully Bonded Underlay	**Detailing Underlays** IKO Easyseal S-A Fully Bonded Underlay
CAP SHEET	**CAP SHEET**	**CAP SHEET**	**CAP SHEET**	**CAP SHEET**
IKO Protorch Cap Sheet – 20 year IKO Britorch SBS Cap Sheet – 20 year IKO Turbo Torch Cap Sheet – 15 year IKO TGX Cap Sheet – 10 year	IKO Easyseal Pro Cap Sheet – 20 year IKO Easyseal Cap Sheet – 20 year**	IKO Protorch Cap Sheet – 20 year IKO Britorch SBS Cap Sheet – 20 year IKO Turbo Torch Cap Sheet – 15 year IKO TGX Cap Sheet – 10 year	IKO Protorch Cap Sheet – 20 year	IKO Easyseal Pro Cap Sheet – 20 year
BONDING OF CAP SHEET	BONDING OF CAP SHEET	BONDING OF CAP SHEET	BONDING OF CAP SHEET	BONDING OF CAP SHEET
Fully bonded by torching	Fully bonded self-adhesive with hot air welded laps	Fully bonded by torching	Fully bonded by torching	Fully bonded self-adhesive with hot air welded laps
UNDERLAY	**UNDERLAY**	**UNDERLAY**	**UNDERLAY**	**UNDERLAY**
IKO Easyseal H-A Partially Bonded Underlay	IKO Easyseal S-A Partially Bonded Underlay	IKO SBS Premium Underlay IKO Film-on-Film Underlay IKO SBS Standard Underlay IKO TGX Underlay	IKO Easyseal H-A Partially Bonded Underlay	IKO Easyseal S-A Partially Bonded Underlay
FASTENING OF UNDERLAY	FASTENING OF UNDERLAY	FASTENING OF UNDERLAY	FASTENING OF UNDERLAY	FASTENING OF UNDERLAY
Partially bonded self-adhesive with hot air welded laps	Partially bonded self-adhesive with hot air welded laps	Fully bonded by torching	Partially bonded self-adhesive with hot air welded laps	Partially bonded self-adhesive with hot air welded laps
PREPARATION PRIMER	**PREPARATION PRIMER**	**PREPARATION PRIMER**	**PREPARATION PRIMER**	**PREPARATION PRIMER**
IKOpro Easyseal Bonding Agent	IKOpro Easyseal Bonding Agent	None required	IKOpro Easyseal Bonding Agent	IKOpro Easyseal Bonding Agent
INSULATION	**INSULATION**	**INSULATION**	**INSULATION**	**INSULATION**
enertherm ALU	enertherm ALU	enertherm BGF	enertherm ALU	enertherm ALU
FASTENING OF INSULATION	FASTENING OF INSULATION	FASTENING OF INSULATION	FASTENING OF INSULATION	FASTENING OF INSULATION
IKOpro PU Adhesive for Insulation	IKOpro PU Adhesive for Insulation	IKOpro PU Adhesive for Insulation	IKOpro PU Adhesive for Insulation	IKOpro PU Adhesive for Insulation
AIR & VAPOUR CONTROL LAYER	**AIR & VAPOUR CONTROL LAYER**	**AIR & VAPOUR CONTROL LAYER**	**AIR & VAPOUR CONTROL LAYER**	**AIR & VAPOUR CONTROL LAYER**
IKO Easyseal S-A Air and Vapour Control Layer*	IKO Easyseal S-A Air and Vapour Control Layer*	IKO Easyseal S-A Air and Vapour Control Layer*	IKO Easyseal S-A Air and Vapour Control Layer*	IKO Easyseal S-A Air and Vapour Control Layer*
FASTENING OF THE VAPOUR CONTROL LAYER	FASTENING OF THE VAPOUR CONTROL LAYER	FASTENING OF THE VAPOUR CONTROL LAYER	FASTENING OF THE VAPOUR CONTROL LAYER	FASTENING OF THE VAPOUR CONTROL LAYER
Fully bonded by heat activation* *(IKO Easyseal S-A AVCL)*	Fully bonded by heat activation* *(IKO Easyseal S-A AVCL)*	Fully bonded by heat activation* *(IKO Easyseal S-A AVCL)*	Fully bonded by heat activation* *(IKO Easyseal S-A AVCL)*	Fully bonded by heat activation* *(IKO Easyseal S-A AVCL)*
SUBSTRATE PREPARATION	**SUBSTRATE PREPARATION**	**SUBSTRATE PREPARATION**	**SUBSTRATE PREPARATION**	**SUBSTRATE PREPARATION**
IKOpro Easyseal Bonding Agent *(S-A membranes only)*	IKOpro Easyseal Bonding Agent *(S-A membranes only)*	IKOpro Easyseal Bonding Agent *(S-A membranes only)*	IKOpro Easyseal Bonding Agent *(S-A membranes only)*	IKOpro Easyseal Bonding Agent *(S-A membranes only)*

*Existing substrates must be suitable for self-adhesive membrane application
** Life expectancy only

NOTE: All products listed above are available through builders' merchants/ distribution networks; contact your local IKO area business manager for assistance with procurement.

IKO PLC - Appley Lane North, Appley Bridge, Wigan, Lancashire, WN6 9AB
Web site: www.ikogroup.co.uk

IKO DISTRIBUTION BUR RANGE – COLD FLAT ROOFING SYSTEM OPTIONS

SBS HYBRID

CAP SHEET

IKO Protorch Cap Sheet – 20 year
IKO Britorch SBS Cap Sheet – 20 year
IKO Turbo Torch Cap Sheet – 15 year
IKO TGX Cap Sheet – 10 year

BONDING OF CAP SHEET

Fully bonded by torching

UNDERLAY

IKO Easyseal H-A Partially Bonded Underlay*

DETAILING UNDERLAY

IKO Easyseal H-A Fully Bonded Underlay*

FASTENING OF UNDERLAYS

Self-adhesive application with hot air welded laps -
Partially bonded field areas with fully bonded detailing

PREPARATION PRIMER

IKOpro Easyseal Bonding Agent

SBS SELF-ADHESIVE

CAP SHEET

IKO Easyseal Pro Cap Sheet – 20 year
IKO Easyseal Cap Sheet – 20 year**

BONDING OF CAP SHEET

Fully bonded self-adhesive with hot air welded laps

UNDERLAY

IKO Easyseal S-A Partially Bonded Underlay*

DETAILING UNDERLAY

IKO Easyseal S-A Fully Bonded Underlay*

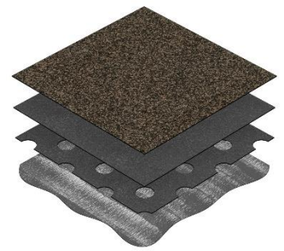
FASTENING OF UNDERLAYS

Self-adhesive application with hot air welded laps -
Partially bonded field areas with fully bonded detailing

PREPARATION PRIMER

IKOpro Easyseal Bonding Agent

SBS TORCH-ON (concrete deck)



CAP SHEET

IKO Protorch Cap Sheet – 20 year
IKO Britorch SBS Cap Sheet – 20 year
IKO Turbo Torch Cap Sheet – 15 year
IKO TGX Cap Sheet – 10 year

BONDING OF CAP SHEET

Fully bonded by torching

UNDERLAY

IKO SBS Premium Underlay
IKO Film-on-Film Underlay
IKO SBS Standard Underlay
IKO TGX Underlay

DETAILING UNDERLAY

Same as chosen underlay above

FASTENING OF UNDERLAYS

Torch-on application -
Partially bonded field areas through venting layer with fully bonded detailing

PREPARATION MEMBRANE

IKO Torch-On Venting Layer

PREPARATION PRIMER

IKOpro Quick Dry Bitumen Primer

FASTENING OF PREPARATION MEMBRANE

Loose laid, secured in place during underlay application

SBS TORCH-ON (timber deck)

CAP SHEET

IKO Protorch Cap Sheet – 20 year

BONDING OF CAP SHEET

Fully bonded by torching

UNDERLAY

IKO SBS Premium Underlay
IKO Film-on-Film Underlay
IKO SBS Standard Underlay
IKO TGX Underlay

DETAILING UNDERLAY

Same as chosen underlay above

FASTENING OF UNDERLAYS

Torch-on application -
Fully bonded field areas with fully bonded detailing

PREPARATION MEMBRANE

IKO Challenger 180 Sand

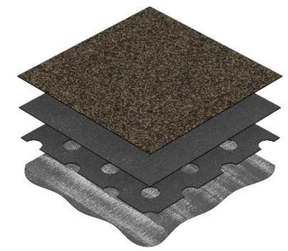
PREPARATION PRIMER

N/A

FASTENING OF PREPARATION MEMBRANE

Partially bonded by nailing

SBS/ APP POUR AND ROLL



CAP SHEET

IKO Challenger SBS 250 Cap Sheet – 15 year
IKO Challenger 180 Cap Sheet – 10 year

BONDING OF CAP SHEET

Fully bonded by Pour & Roll with Easymelt Bonding Bitumen

UNDERLAY

IKO Challenger 180 Sand

DETAILING UNDERLAY

IKO Challenger 180 Sand

FASTENING OF UNDERLAYS

Pour and Roll application -
Fully bonded by Pour & Roll with Easymelt Bonding Bitumen

PREPARATION MEMBRANE

IKO Perforated Slate Underlay (3G)

PREPARATION PRIMER

IKOpro Quick Dry Bitumen Primer

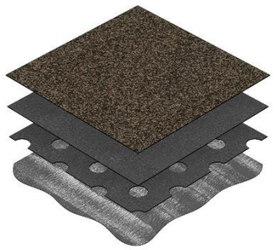
FASTENING OF PREPARATION MEMBRANE

Loose laid, secured in place during underlay application

*Existing substrates must be suitable for self-adhesive membrane application
** Life expectancy only

NOTE: All products listed above are available through builders' merchants/ distribution networks; contact your local IKO area business manager for assistance with procurement.

IKO DISTRIBUTION BUR RANGE – COLD FLAT ROOFING SYSTEM OPTIONS (cont'd)

APP TORCH-ON (concrete deck)	APP TORCH-ON (timber deck)	COLD BITUMEN ADHESIVE		
				
CAP SHEET	**CAP SHEET**			
IKO Britorch APP Cap Sheet – 20 year IKO Adesso Cap Sheet – 10 year IKO APP Cap Sheet – 10 year	IKO Britorch APP Cap Sheet – 20 year IKO Adesso Cap Sheet – 10 year IKO APP Cap Sheet – 10 year	IKO Challenger SBS 250 Cap Sheet – 15 year IKO Challenger 180 Cap Sheet – 10 year IKO Trade Top Sheet – 10 year**		
BONDING OF CAP SHEET	BONDING OF CAP SHEET	BONDING OF CAP SHEET		
Fully bonded by torching	Fully bonded by torching	Fully bonded with cold bitumen adhesive		
UNDERLAY	**UNDERLAY**	**UNDERLAY**		
IKO APP Polyester Universal Underlay IKO APP Glass Universal Underlay	IKO APP Polyester Universal Underlay IKO APP Glass Universal Underlay	IKO Challenger 180 Sand *… under Challenger Cap Sheets* IKO Trade Felt Underlay IKO Trade Felt Underlay – Medium *… under Trade Top Sheet*		
DETAILING UNDERLAY	**DETAILING UNDERLAY**	**DETAILING UNDERLAY**		
Same as chosen underlay above	Same as chosen underlay above	Same as chosen underlay above		
FASTENING OF UNDERLAYS	FASTENING OF UNDERLAYS	FASTENING OF UNDERLAYS		
Torch-on application - Partially bonded field areas through venting layer with fully bonded detailing	Torch-on application - Fully bonded field areas with fully bonded detailing	Cold Bitumen Adhesive application - Partially bonded field areas (strip bonded) with fully bonded detailing		
PREPARATION MEMBRANE	**PREPARATION MEMBRANE**	**PREPARATION PRIMER**		
IKO Torch-On Venting Layer	IKO Challenger 180 Sand	IKOpro Quick Dry Bitumen Primer		
PREPARATION PRIMER	**PREPARATION PRIMER**			
IKOpro Quick Dry Bitumen Primer	N/A			
FASTENING OF PREPARATION MEMBRANE	FASTENING OF PREPARATION MEMBRANE			
Loose laid, secured in place during underlay application	Partially bonded by nailing			

*Existing substrates must be suitable for self-adhesive membrane application
** Life expectancy only

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