

NSAI
Agrément

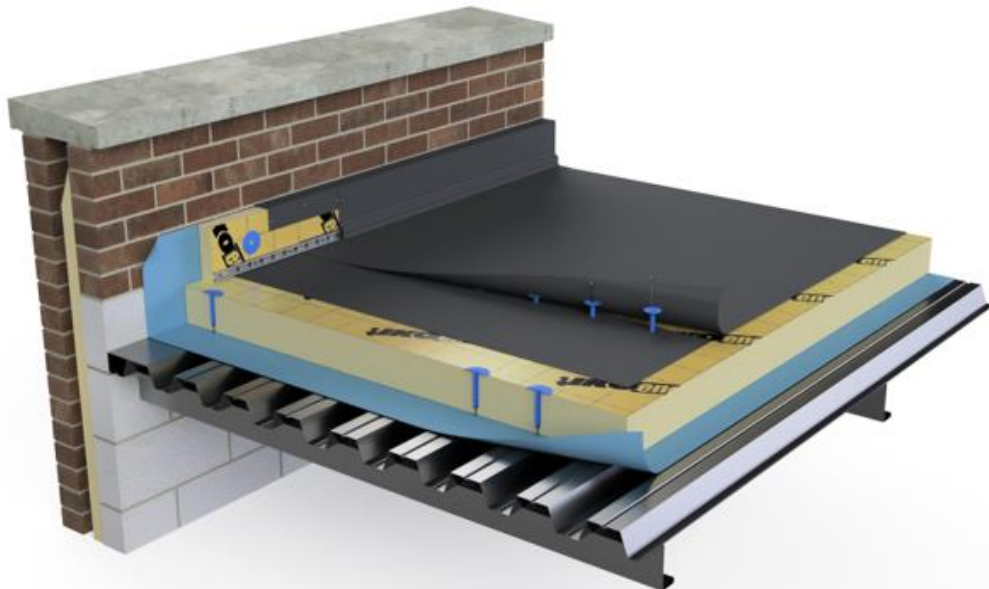
CERTIFICATE NO. 24/0444

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IKO Armourplan Waterproofing Systems

NSAI Agrément (Irish Agrément Board) is designated by Government to carry out European Technical Assessments.

NSAI Agrément Certificates establish proof that the certified products are 'proper materials' suitable for their intended use under Irish site conditions, and in accordance with TGD Part D of the second schedule of the Building Regulations 1997 to 2023



PRODUCT DESCRIPTION:

This Certificate relates to the IKO Armourplan range of Roof Waterproofing Systems, a range of polyester or glass reinforced single-ply Polyvinyl Chloride (PVC) membranes for use in mechanically fastened, ballasted or adhered waterproofing systems on flat or pitched roofs.

In the opinion of NSAI, the IKO Armourplan range of Roof Waterproofing Systems as described in this Certificate complies with the requirements of the Irish Building Regulations 1997 to 2023.

USE:

This Certificate covers the use of the IKO Armourplan Roofing membranes as fully or partially bonded or loose laid and ballasted, single ply waterproofing systems on flat or pitched roofs with limited access. The Systems are intended for use with substrates in accordance with section 3.1.1 of this certificate and for all normal roofing details such as parapets, outlets and roof lights.

MANUFACTURE AND MARKETING:

The product is manufactured by:

IKO Polymeric,
Coney Green Road,
Clay Cross,
Chesterfield,
S45 9HZ

The product is marketed in Ireland by:

IKO Limited,
Unit 502, Northwest Business Park,
Ballycoolin, Dublin 15.
Tel: 01 8855090
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Readers are advised to check that this Certificate has not been withdrawn or superseded by a later issue by contacting NSAI Agrément, NSAI, Santry, Dublin 9 or online at <http://www.nσαι.ie>

1.1. ASSESSMENT

In the opinion of the NSAI Agrément, IKO Armourplan Waterproofing Membranes installed in Ireland by trained, licensed contractors in accordance with processing specifications issued by IKO Ltd and used in accordance with this Certificate, meet the requirements of the Building Regulations 1997 - 2023 as indicated in Section 1.2 of this Certificate.

1.2. IRISH BUILDING REGULATIONS

REQUIREMENTS:

Part A – Structure A1 – Loading

IKO Armourplan Waterproofing Membranes can meet the loading requirements, provided the installation complies with the conditions described in this Certificate.

Part B Vol 1– Fire Safety

Part B Vol 2 – Fire Safety

B4 & B9 – External Fire Spread

IKO Armourplan Waterproofing Membranes, when installed on suitable substructures, can enable a roof to be classified as either EXT.F.AB, EXT.F.AC or Broof (t4)) when independently tested and classified in accordance with BS 476⁽¹³⁾ or EN 13501-5:2016⁽¹⁴⁾ respectively, as indicated in Part 4.1 of this Certificate.

Part C – Site Preparation and Resistance to Moisture

C4 – Resistance to Weather and Ground Moisture

IKO Armourplan Waterproofing Membranes can meet the weather resistant requirements when installed as indicated in Part 2.7 of this Certificate.

Part D – Materials and Workmanship

D1 – IKO Armourplan Waterproofing Membranes, as certified in this Certificate, meet the requirements of the building regulations for workmanship.

D3 – IKO Armourplan Waterproofing Membranes, as certified in this Certificate, are comprised of proper materials fit for their intended use (See Part 3 of this Certificate).

Part F – Ventilation F2 – Condensation in Roofs

IKO Armourplan Waterproofing Membranes can meet the requirements of this regulation, when designed and installed in accordance with this certificate.

Part L – Conservation of Fuel and Energy L1 - Conservation of fuel and energy

IKO Armourplan Waterproofing Membranes, in conjunction with the full roof build-up, can contribute to or meet the requirements of this regulation, when designed and installed in accordance with this certificate.

2.1 PRODUCT DESCRIPTION

The IKO Armourplan range of Roof Waterproofing Systems, are polyester or glass reinforced single - ply Polyvinyl Chloride (PVC) membranes for use in mechanically fastened, ballasted or adhered waterproofing systems on flat or pitched roofs as outlined in Section 2.2 and its applications outlined in Table 5. For further details on specifications, third party certification and testing the certificate holder should be consulted.

2.2 PRODUCT RANGE

2.2.1 Armourplan SM

Polyester-reinforced (120g/m²) single-ply Polyvinyl Chloride (PVC) membranes for use in mechanically fastened and loose-laid and ballasted waterproofing systems on flat or pitched roofs, available in SM120 and SM150 grades.

Characteristic (unit)	SM120 (Value)	SM150 (Value)
Thickness (mm)	1.2	1.5
Roll Width (mm)	1060,1500,2120	
Roll Length (m)	20	
Mass per unit area (kg/m ²)	1.6	2.0

Table 1: Armourplan SM

2.2.2 Armourplan SG

Glass tissue (50g/m²) reinforced single-ply Polyvinyl Chloride (PVC) fleece-backed (135g/m²) membranes for use in adhered waterproofing systems on flat or pitched roofs, available in SG120 and SG150 grades.

Characteristic (unit)	SG120 (Value)	SG150 (Value)
Thickness (mm)	1.2	1.5
Roll Width (mm)	2120	
Roll Length (m)	20	
Mass per unit area (kg/m ²)	1.75	2.15

Table 2: Armourplan SG

2.2.3 Armourplan P

Polyester scrim (140g/m²) reinforced single-ply polyvinyl chloride (PVC) membrane for use in mechanically fastened and loose-laid and ballasted waterproofing systems on flat or pitched roofs.

Characteristic (unit)	P120 (Value)
Thickness (mm)	1.2mm
Roll Width (mm)	1060,1500,2120
Roll Length (m)	20
Mass per unit area (kg/m ²)	1.7

Table 3: Armourplan P

2.2.4 Armourplan PSG

Glass tissue (50g/m²) reinforced single-ply polyvinyl chloride (PVC) fleece-backed (135g/m²) membrane for use in adhered waterproofing systems on flat or pitched roofs.

Characteristic (unit)	PSG120 (Value)
Thickness (mm)	1.2mm
Roll Width (mm)	1060,1500,2120
Roll Length (m)	20
Mass per unit area (kg/m ²)	1.75

Table 4: Armourplan PSG

2.3 ANCILLARY ITEMS

- Armourplan Cover Strips: Glass tissue and polyester scrim reinforced membrane cover strips for jointing coated metals and detailing.
- Armourplan Pre-formed Corners: Pre-formed internal and external corners.
- Armourplan Seam Cleaner: Preparation solvent for cleaning PVC roofing membranes as required (eg prior to welding).
- IKOfix Toothed Flatbar: steel fixing strips for membrane anchorage on mechanically fastened, inverted and ballasted systems
- IKOfix Fixing Range: mechanical fixings and pressure plates for attachment of membranes and insulation boards
- Armourplan PVC Contact Adhesive.
- Armourplan Coated Metal: 0.6 mm galvanized steel sheet, coated with 0.6 mm of Armourplan PVC Membrane, for use in detailing.
- IKO Spectravap: A Polyethylene AVCL.
- IKOpro Quick Dry Bitumen Primer: Bituminous primer for torch-on and pour-and-roll AVCL applications.
- IKO Ultra T-O Underlay
- IKO Ultra TF Underlay

Note: the IKO Armourplan waterproofing system range may use other Ancillary items however they have not been assessed as part of this certification.

2.4 MANUFACTURE

The membranes are manufactured by an extrusion and calendaring process. Calendared PVC is created by melting the PVC, plasticizer, and colorant together. The molten materials then are pressed by Calendaring rollers to achieve the desired width, thickness, and surface finish of the film. The membranes are manufactured in 1500 linear metre lengths and then cut to the required individual roll lengths of 20m.

2.5 QUALITY CONTROL

The NSAI have assessed and agreed the following with respect to the quality control of the waterproofing membrane:

- The quality control procedures and product testing to be undertaken have been agreed, documented, and implemented within the company quality management system. The management system of IKO PLC has been assessed and registered as meeting the requirements of IS EN ISO 9001: 2015⁽²⁾ by BSI (Certificate Q05233), IS EN ISO 14001 :2015⁽³⁾ by Lucideon (Certificate 24709) and BES 6001⁽⁴⁾ : Issue 3.1 by Lucideon (Certificate 24710).
- The quality control procedures implemented for batches of incoming materials have been assessed and agreed.
- The production process has been audited and verified that it is in accordance with the documented process.
- The investigative procedures and management of non-conformities has been evaluated for effectiveness.
- Production and testing equipment has been properly calibrated and is operated by competent personnel.
- Agreed to verify the above measures on a regular basis through a surveillance process.

2.6 DELIVERY, STORAGE

Each roll of membrane carries a label which identifies the product name, thickness, dimensions, carrier type, batch number and a barcode. The membrane itself is also printed at 2m intervals with a QR code which identifies the product code and batch number to aid traceability. The rolls are stacked horizontally on pallets and protected with a transparent shrinkage wrap. Rolls should be stored under cover with no more than two pallets stacked on top of each other. Solvents and sealants must be stored in a dry, sealed area reserved for flammable materials.

2.7 INSTALLATION

2.7.1 General

All installation work must be carried out in accordance with the manufacturer's installation instructions by trained and licensed IKO roofing installation contractors, whose records are kept on the Certificate holder's database.

As required, the Certificate holder will carry out wind loading calculations in accordance with the requirements of I.S. EN 1991-1-4⁽⁵⁾. Based on these calculations, the substrate and the clients specific requirements, an appropriate IKO Armourplan Waterproofing Membrane is selected.

The certificate holder is not responsible for the design of the roof or the substrate on which the IKO system is to be applied. This is typically the responsibility of the Client's Structural Engineer. EN 13956:2012⁽¹⁾ should be used to determine the correct system specification for each project. Substrates to which the systems are applied

must be sound, dry, clean and free from sharp projections such as nail heads and concrete nibs. When used over a rough substrate, a suitable protection layer must be placed over the substrate.

When refurbishing existing roofs, a thorough survey of the existing roof structure must be undertaken by an appropriately qualified professional to determine the adequacy of same. Where defects are identified, remedial measures must be undertaken prior to proceeding with the application of the appropriate IKO roof waterproofing system. The certificate holder can incorporate insulation of various thicknesses to achieve a range of U-values to meet the clients requirements.

Joining of the membrane is achieved through hot air welding in accordance with the certificate holders instructions. The minimum width of a welded joint is 30mm within the field when welded with an automatic welding machine and 40mm when hand welded. , the following minimum system overlaps are required, Adhered - 65mm, Loose laid - 80mm, Mechanically fixed - 110mm. On completion of the weld and once cooled, the seam should be tested with a 5mm metal probe to ensure the bond is acceptable, any abnormalities should be repaired immediately. Provided the seam is clean it can be rewelded and rechecked. If the probe detects a large, failed lap then a patch is required to be welded over it with a minimum 80mm extra overlap on either side of the failed joint.

IKO Armourplan Waterproofing Membranes may be laid in conditions normal to roofing work, but should not be laid in rain, snow or heavy fog or at temperatures below 0°C.

Contact with bituminous, coal tar and oil-based products or polystyrene insulation boards must be avoided as the membranes are not compatible with lower grades of bitumen. If contact with such products is likely, a separating layer must be introduced before installing the waterproofing sheet.

2.7.2 Installation Procedure

The IKO Armourplan Waterproofing Membranes are to be installed by trained and licenced installers in accordance with the procedures in the dedicated Installation Manual⁽¹⁶⁾.

It is important that a suitable vapour control layer (VCL) is installed beneath any insulation material to reduce the risk of interstitial condensation occurring in the insulation/waterproofing system.

3.1 GENERAL

3.1.1

IKO Armourplan Waterproofing Systems, when installed in accordance with the manufacturer's instructions are suitable for use on insulated decks, concrete, timber or metal decks as a fully or partially bonded, or loose laid and ballasted, waterproofing systems on flat or pitched roofs with limited access.

3.1.2

Limited access roofs are defined for the purpose of this Certificate as roofs that are subjected only to pedestrian traffic for maintenance of the roof covering and cleaning of gutters, etc.

3.1.3

Where it is envisaged that traffic will be in excess of access loads only, special precautions should be taken to protect the waterproofing membrane by the use of a suitable walkway.

3.1.4

Insulation materials should comply with EN13165:2012+A2:2016⁽¹⁵⁾ or be the subject of a current NSAI Agrément Certificate. The advice of the certificate holder should be sought as necessary.

Non-traditional insulation systems or other materials used in conjunction with this roofing system must only be used if approved by the Certificate holder.

3.1.5

Structural decks to which the system is to be applied must be suitable to transmit the dead and imposed loads experienced in service. Imposed loads, dead loading and wind loads are calculated in accordance with IS EN 1991-1-1⁽¹¹⁾, IS EN 1991-1-3⁽¹²⁾ and IS EN 1991-1-4⁽⁵⁾, and their Irish National Annexes.

3.1.6

The system is impervious to water and, when used as described in this Certificate, can enable a roof to comply with the requirements of the Irish Building Regulations.

3.1.7

Wind loads should be assessed in accordance with I.S. EN 1991-1-4:2005 + A1:2010⁽⁵⁾ and the Irish National Annex on a project specific basis, taking due consideration of the roof build-up for the project such as; any added surfacing such as green roofs, paving slabs, gravel, blue roof water retention, etc. The resistance to wind uplift of the waterproof covering and finishes on a flat roof should be assessed having regard to the dead weight of those materials and to the nature, type and disposition of their attachment to the slab or deck-

3.1.8

To minimize ponding it is recommended that flat roofs should have a Design Fall of 1:40 to

achieve a Minimum Finished fall of 1:80, unless a detailed analysis of the roof is available, including overall and local deflection and direction of falls

3.2 THERMAL INSULATION

Calculations of the thermal transmittance (U-Value) of specific roof build-ups should be carried out in accordance with I.S. EN ISO 6946:2017⁽⁶⁾ using a thermal conductivity (λ) value of the products as defined by the certificate holder. The U-Value of a construction will depend on the materials used and the design. Insulation material used under the membranes must be approved for use by IKO.

For retrofit installations on existing dwellings, guidance should be sought from the certificate holder on achievable U-values as the actual U-Value of installation will depend on the construction of the existing building elements.

3.3 CONDENSATION RISK

The interstitial and internal condensation risk of the roof should be assessed in accordance with BS 6229:2018⁽⁷⁾ and BS 5250:2021⁽⁸⁾. An approved vapour barrier (VCL) is required on the warm side of the insulation in all instances. To avoid the risk of interstitial condensation in cold flat roofs, an AVCL should be provided on the warm side of the insulation and there should be a cross-ventilated void, not less than 50mm deep, between the slab or deck and the insulation.

The vapour control layer should be laid with fully bonded 80 - 100 mm side and 120 - 150 mm end laps. At all edges, abutments and penetrations, the VCL should be either turned back at least 150mm onto the insulation and sealed down or turned up and sealed to the main roof covering for at least 50 mm, to encapsulate the insulation.

Ventilation openings shall be provided to every roof void along two opposite sides of the roof. For inverted flat roofs, it is essential that the thermal insulation used resists water absorption and is sufficiently loadbearing to support the protective covering or ballast where used. When building elements do not follow the principles of BS 5250:2021⁽⁸⁾, a robust hydrothermal assessment to either I.S. EN 15026:2023⁽⁹⁾ or I.S. EN ISO 13788:2012⁽¹⁰⁾ must be considered.

3.4 INTERNAL SURFACE CONDENSATION

For retrofit installation, when improving the thermal performance of the external envelope of an existing building, through to upgrading of roof insulation as part of a roof build-up, designers need to consider the impact of these improvements on other untouched elements of the building.

3.5 LOADING

Properly fully bonded membranes have bond strengths capable of resisting wind loads. Membranes, being flexible, have good resistance to cyclic movement. Dead loads, wind loading and imposed loads are calculated in accordance with EN 1991-1-1⁽¹¹⁾ : 2002, EN 1991-1-3 : 2003⁽¹²⁾

and EN 1991-1-4⁽⁵⁾ : 2005.

For mechanically fastened membranes, the resistance to wind uplift is provided by the fasteners being fixed through the membrane to the substrate, the quantity of fasteners and spacing will be determined by IKO based on a number of factors such as pull-out strength of fastener, tensile properties of the membrane, expected wind uplift forces and appropriate calculation of safety factors.

excess of this is envisaged, such as maintenance of lift equipment, a walkway must be provided (for example, using concrete slabs supported on bearing pads or manufacturer's walkway sheets). Reasonable care must be taken to avoid puncture of the membranes by sharp objects or concentrated loads.

3.6 ENVIRONMENTAL INFORMATION

3.6.1 COMPONENT MATERIALS

The component materials have been assessed and registered as meeting the requirements of BES 6001⁽⁴⁾ - Responsible Sourcing of Construction Products.

3.6.2 RECYCLABILITY

The products comprise polyvinyl chloride, polyester and glass, which can be recycled.

3.7 MAINTENANCE

Installed IKO waterproofing systems must be the subject of biannual inspections and maintenance to ensure continued performance as detailed in BS6229⁽⁷⁾. Maintenance should be in accordance with and recorded in the IKO maintenance guidance manual⁽¹⁷⁾ and include checks and operations to ensure the exposed membrane is free from the build-up of silt, and other debris and unwanted vegetation is cleared.

Drainage outlets and gutters should be regularly maintained. In the event of accidental damage, repair should be carried out by a licensed IKO contractor in accordance with the certificate holder's instructions. Where an intensive Green Roof has been applied, suitable access and working methods must be provided for the safe ongoing maintenance of the planted areas. In all such instances the advice of the certificate holder should be sought.

3.8 RESISTANCE TO FOOT TRAFFIC

The system can accept the limited foot traffic and light concentrated loads associated with installation and maintenance. Where traffic in

4.1 FIRE PERFORMANCE

The external fire performance classification of the IKO Armourplan Membranes in accordance with EN 13501-5 is limited to Class F. However on specific substructures, the use of the IKO Armourplan Membranes as one element of those specific fire test configurations have been shown to enable those complete roof configurations to be classified as either EXT.F.AB, EXT.F.AC or Broof (t3/t4)) when independently tested and classified in accordance with either BS 476(13) or EN 13501-5:2016(14) respectively, for more information on the fire testing carried out, the advice of the certificate holder should be sought.

4.2 WEATHERTIGHTNESS

Assessment has shown that IKO Armourplan Waterproofing Membranes and joints, when completely sealed and consolidated by hot air welding, will adequately resist the passage of moisture to the inside of the building. IKO waterproofing systems are capable of accepting minor structural movements without damage and so meet the requirements of Part C of the Building Regulations.

4.3 RESISTANCE TO WIND UPLIFT

The resistance to wind uplift of the mechanically - fastened waterproofing membranes is provided by the fasteners passing through the membrane into the substrate. The number and position of fixings will depend on a number of factors including:

- wind uplift forces to be restrained
- pull-out strength of the fasteners
- tensile properties of the membrane
- appropriate calculation of safety factors.

The wind uplift forces are calculated in accordance with I.S. EN 1991-1-4⁽¹⁸⁾.

When the adhesively fixed IKO Armourplan Waterproofing Membranes are bonded to insulation boards, the resistance to wind uplift will be dependent on the cohesive strength of the insulation and the method by which it is secured to the roof deck. This must be taken into account when selecting suitable insulation material.

The ballast requirements for loose-laid Armourplan systems must be calculated in accordance with the relevant parts of I.S. EN 1991-1-4⁽¹⁸⁾.

The soil used in roof gardens must not be of a type that will be removed or become

delocalised due to wind scour experienced on the roof. It must be recognised that the type of plants used in roof gardens could significantly affect the expected wind load experienced in service.

4.4 EFFECTS OF TEMPERATURE

IKO Armourplan Waterproofing Membranes will resist temperatures in the range of -20°C to 80°C .

4.5 RESISTANCE TO STATIC LOADING AND RESISTANCE TO IMPACT

IKO Armourplan Waterproofing Membranes were tested in accordance with IS EN 13956^[1] for resistance to static loading and resistance to impact. For more information on the testing carried out, the advice of the certificate holder should be sought

4.6 OTHER INVESTIGATIONS

- (i) Existing data on properties in relation to fire, and durability were assessed.
- (ii) The manufacturing process was examined including methods adopted for quality control and details were obtained of the quality and composition of the materials used.
- (iii) NSAI Agrément carried out a site visit to assess the history of use and practicability of installation of the product.

4.7 OTHER THIRD-PARTY PRODUCT TESTING

Other examples of third-party laboratory testing that was carried out relates to:

- (i) Dimensional stability
- (ii) Tensile strength and elongation
- (iii) Resistance to tear
- (iv) Joint peel and shear resistance

4.8 CE MARKING

The manufacturer has taken responsibility of CE marking the IKO Armourplan Waterproofing Membranes in accordance with harmonised European Standard IS EN 13956⁽¹⁾. The NSAI assessment was performed against the Certificate holders Declaration of Performance (DoP) listed in the bibliography⁽¹⁹⁾⁽²⁰⁾⁽²¹⁾⁽²²⁾ which should be referenced for the essential characteristic values of the (IKO Armourplan SM, SG, P, PSG) products assessed.

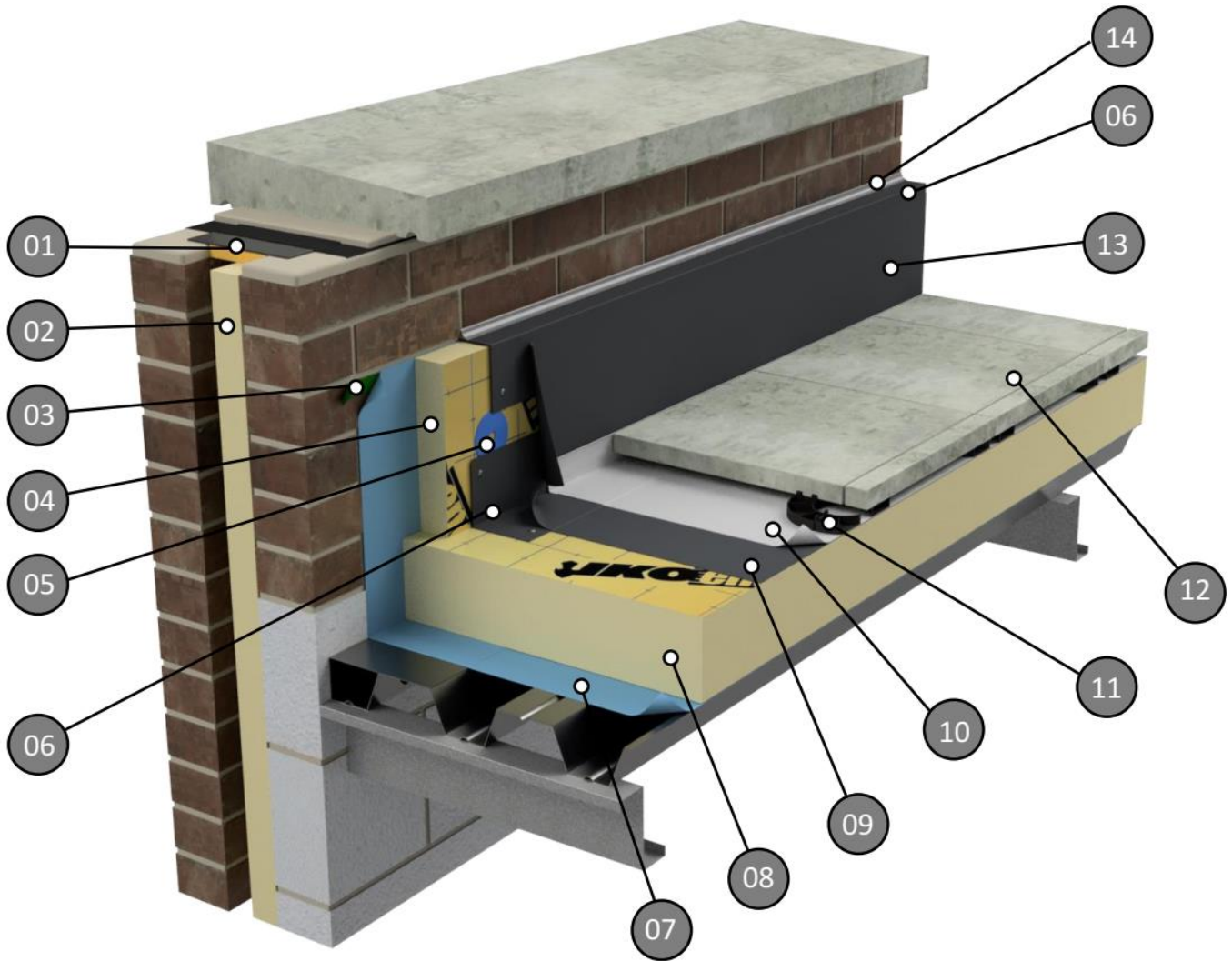
4.9 DURABILITY

In the opinion of the NSAI Agrément, when installed in accordance with this Certificate and adequately supported by the substrate, under normal service conditions, the systems can provide a durable roof waterproofing with a



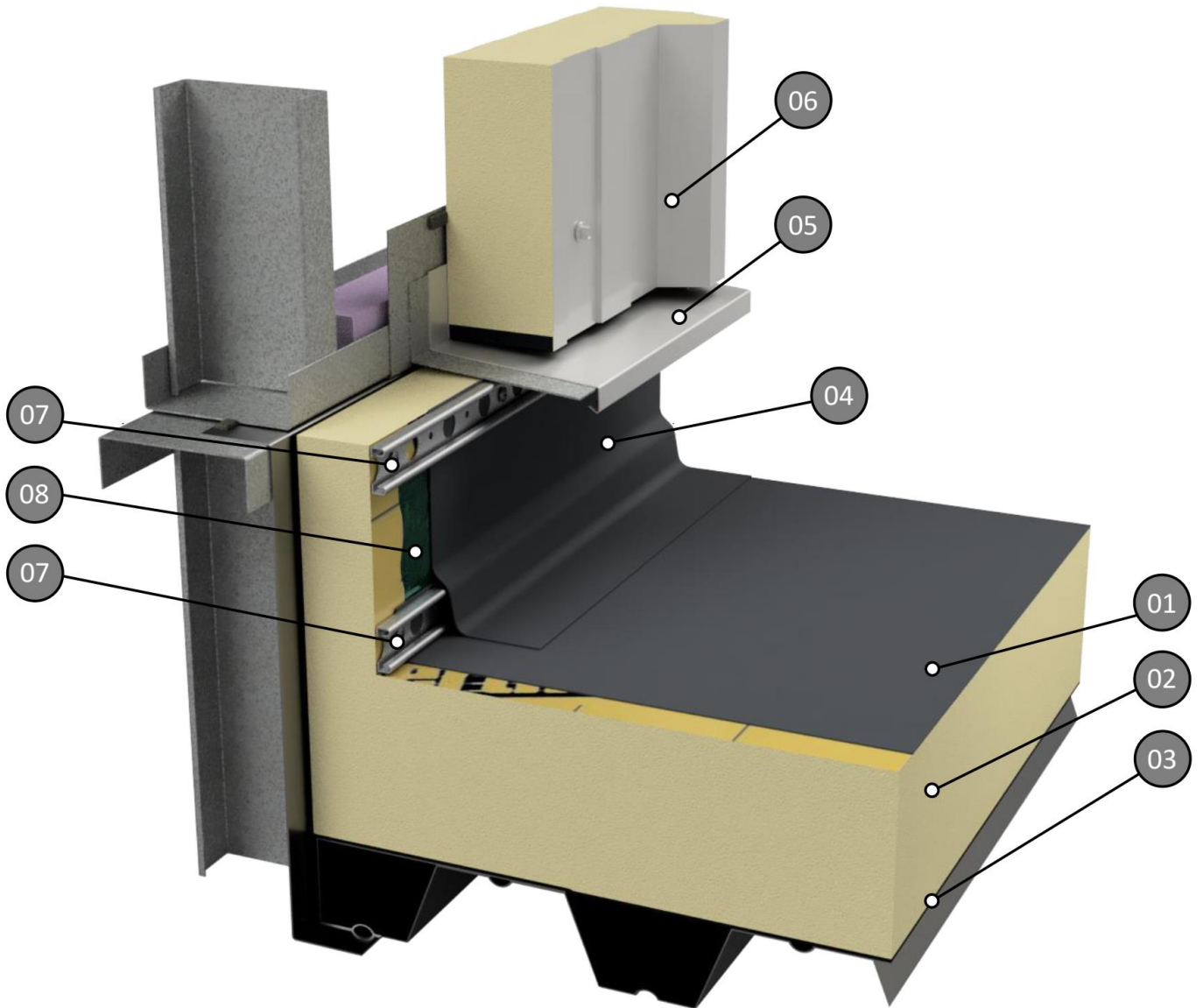
service life in excess of 30 years. In environments where the membranes are in contact with organic solvents, life expectancy of the membranes may be reduced. In cases of doubt, the advice of the Certificate holder must be sought.

Repairs carried out by IKO registered installers in accordance with the IKO installation manual should be effective in restoring weather tightness.



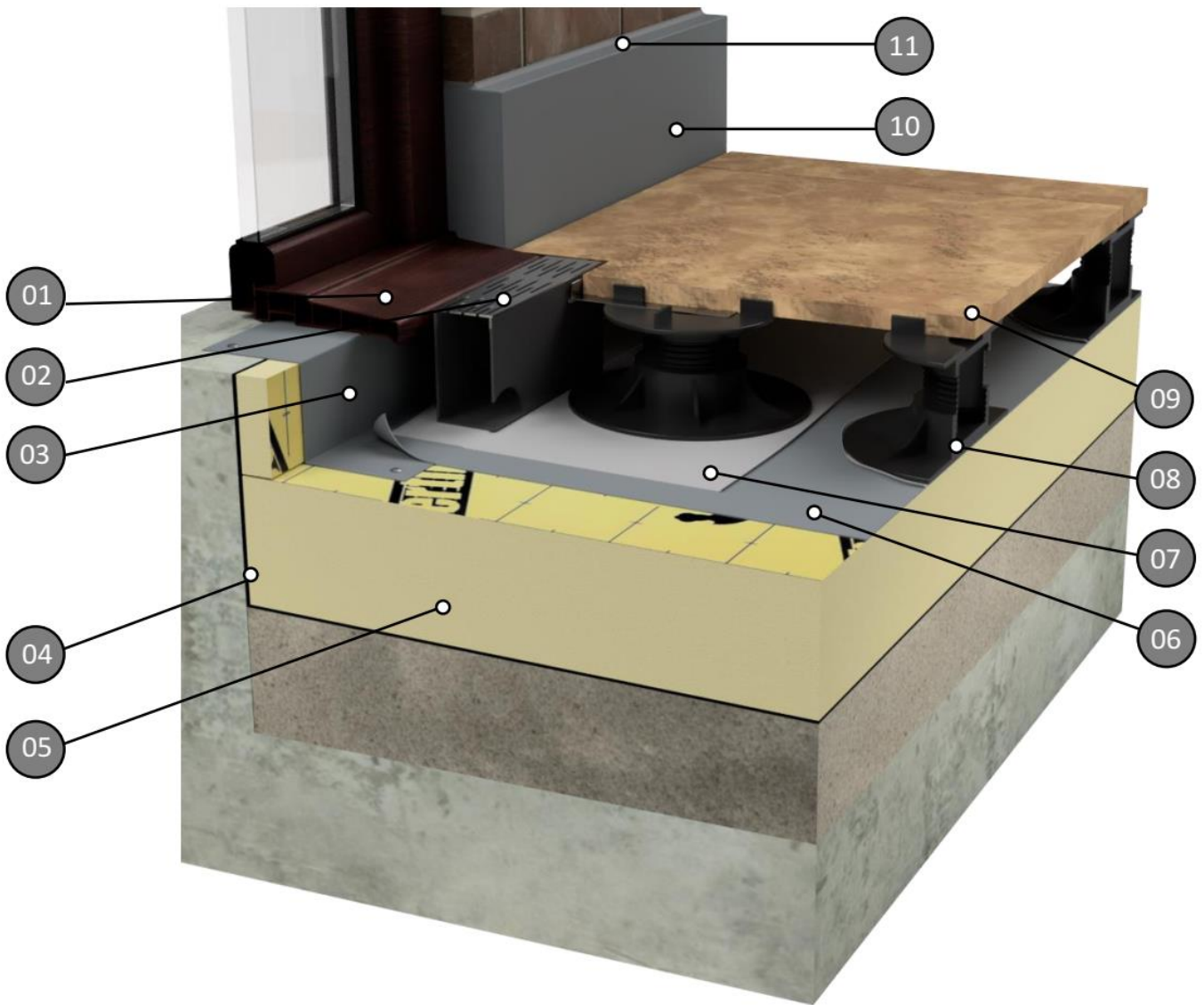
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|--------------------------------------|--|
| 1. IKO Hyload Copeclose | 8. IKO PIR Insulation |
| 2. IKO PIR Cavity Insulation | 9. IKO Armourplan PVC Membrane |
| 3. IKO Spectravap Jointing Tape | 10. IKO Spectratex Protective Fleece |
| 4. IKO PIR Upstand Insulation | 11. Paving Support Pad |
| 5. IKOfix Insulation Tube and Fixing | 12. Paving |
| 6. IKO Armourplan PVC Coated Metal | 13. IKO Armourplan SM/P PVC Upstand Membrane |
| 7. IKO Spectravap AVCL | 14. IKO PVC Sealant |

Figure 1: Ballasted Warm Roof with Armourplan Membrane



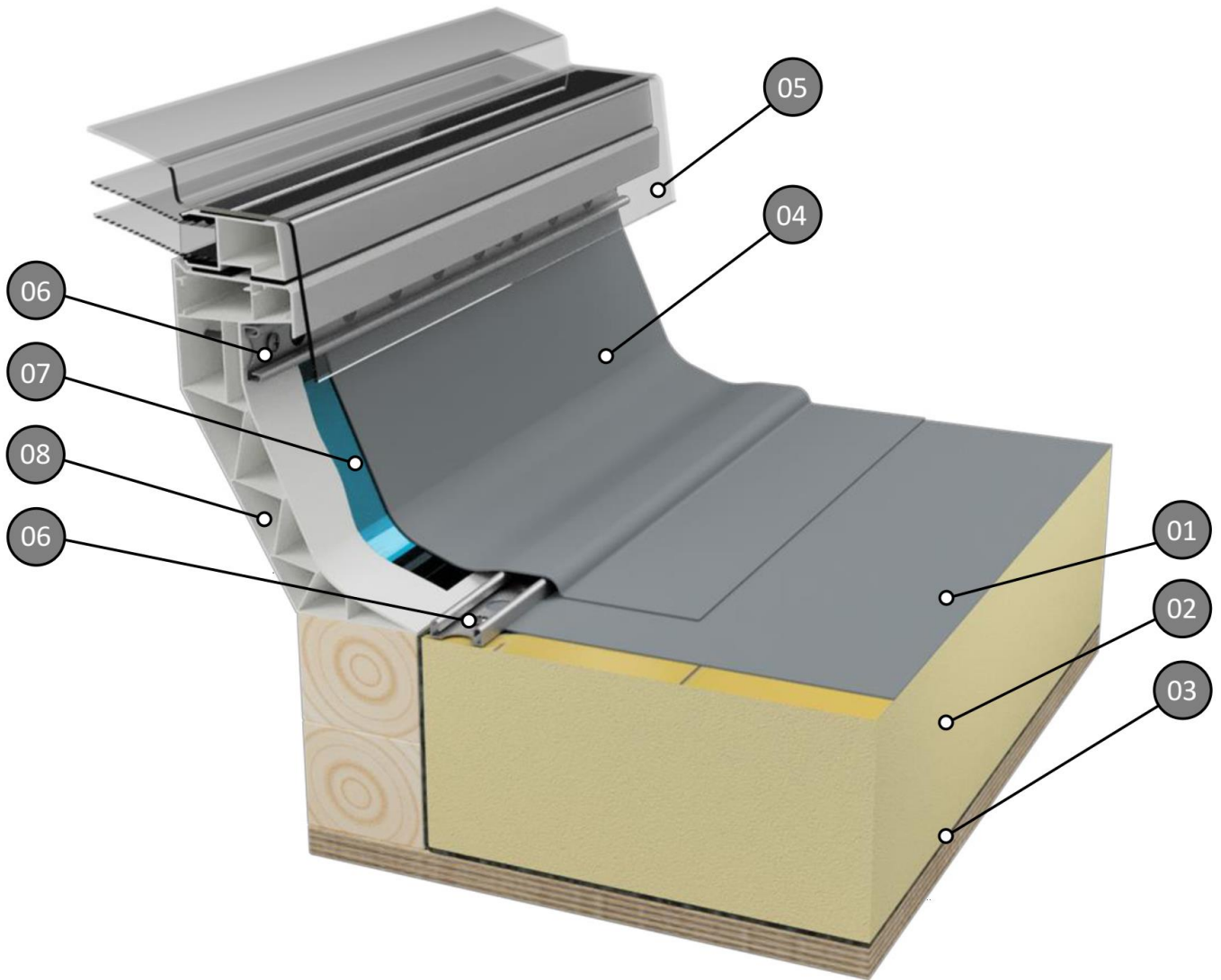
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| 1. IKO Armourplan Membrane | 5. Cladding Sill |
| 2. Insulation | 6. External Cladding Panel |
| 3. IKO AVCL | 7. Perimeter Bar |
| 4. IKO Armourplan SM/P | 8. IKO PVC Contact Adhesive |

Figure 2: SFS Cladding upstand with Armourplan Membrane



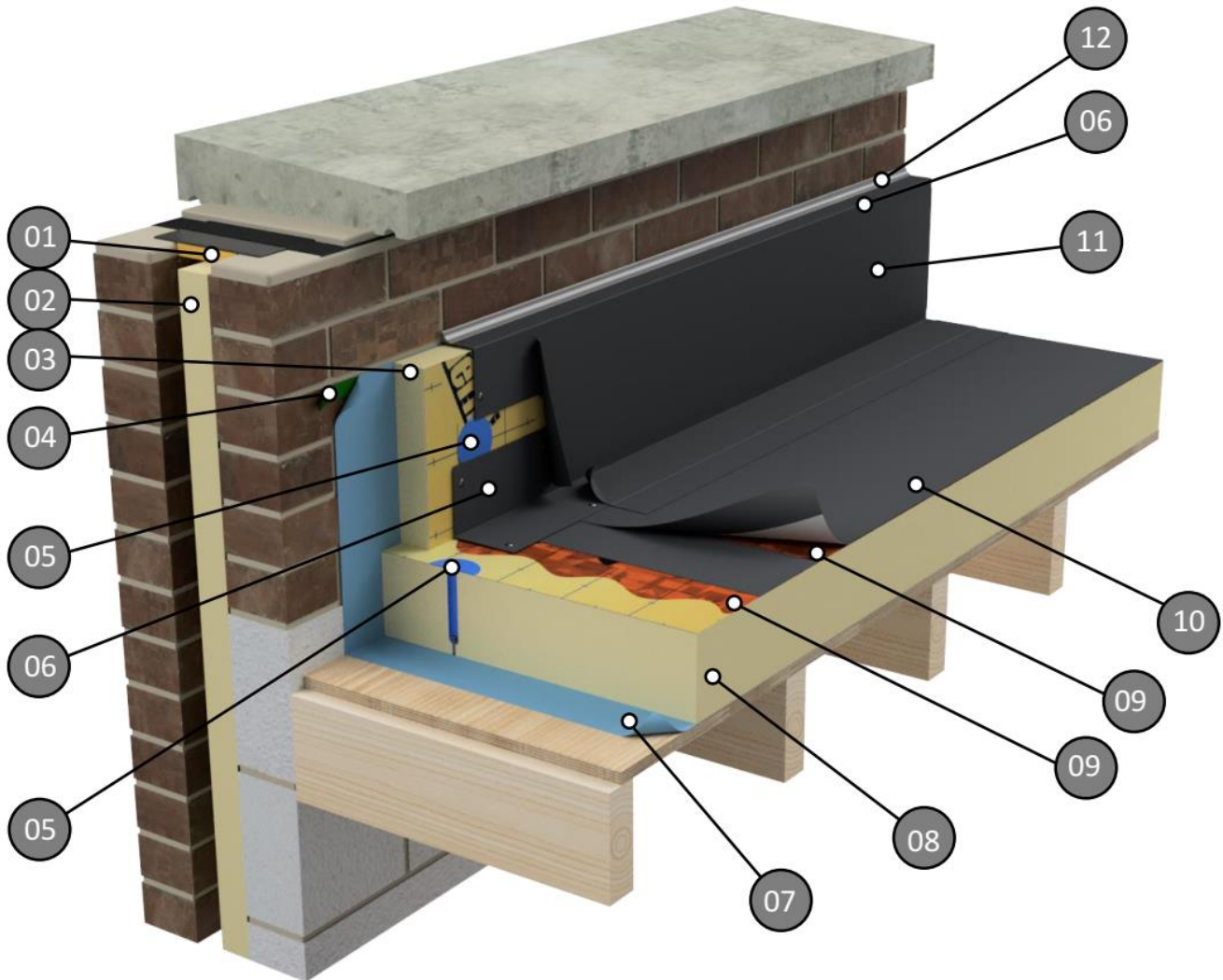
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| 1. Door Sill | 7. IKO Spectratex Protective Fleece |
| 2. Drainage Chanel | 8. Adjustable Paving Support on IKO Spectratex Protective Fleece |
| 3. IKO Armourplan PVC Coated Metal | 9. Paving |
| 4. IKO AVCL | |
| 5. IKO PIR Insulation | 10. IKO Armourplan PVC Upstand Membrane |
| 6. IKO Armourplan PVC Membrane | 11. IKO Armourplan PVC Coated Metal & IKO PVC Sealant |

Figure 3: Level Door threshold with Armourplan Membrane



1. IKO Armourplan Membrane
2. PIR Insulation
3. IKO AVCL
4. IKO Armourplan SM/P
5. Rooflight
6. Perimeter Bar
7. Rooflight Kerb

Figure 4: Rooflight Upstand with Armourplan Membrane



- | | |
|--------------------------------------|---|
| 1. IKO Hyload Copeclose | 8. IKO PIR Insulation |
| 2. IKO PIR Cavity Insulation | 9. IKO Spectrabond LFPU Membrane Adhesive |
| 3. IKO PIR Upstand Insulation | |
| 4. IKO Spectravap Jointing Tape | 10. IKO Armourplan SG/PSG Membrane |
| 5. IKOfix Insulation Tube and Fixing | 11. IKO Armourplan SM/P Upstand Membrane |
| 6. IKO Armourplan PVC Coated Metal | |
| 7. IKO Spectravap AVCL | 12. IKO PVC Sealant |

Figure 5: Hybrid Armourplan Warm Roof

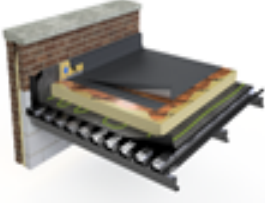
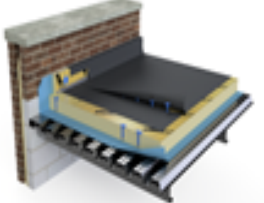
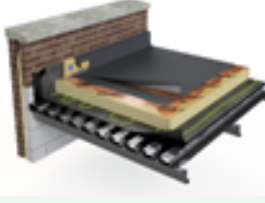
Typical Applications of Use of Armourplan range of membranes			
Substrate	Concrete + IKO pro Quick Dry Primer	Metal deck + IKO pro SA Primer	Timber + IKO pro SA Primer
Product Options	IKO Armourplan PSG IKO Armourplan SG120 IKO Armourplan SG150	IKO Armourplan SM120 IKO Armourplan SM150 IKO Armourplan P	IKO Armourplan PSG IKO Armourplan SG120 IKO Armourplan SG150
Fixing Method	Fully Adhered + IKO Spectra Low Foam Adhesive or IKO Sprayfast FMA	Mechanically Fastened	Fully Adhered + IKO Spectra Low Foam Adhesive or IKO Sprayfast FMA
Example Illustration			
Insulation Fastening	-PIR with Tissue facing -Bonded with IKO pro PU or Mechanically Fixed	-PIR with ALU facing -Mechanically fixed	-PIR with Tissue facing -Bonded with IKO pro PU or Mechanically Fixed
Vapour Barrier	IKO Ultra T-O Underlay IKO Ultra T-O VCL IKO Sealbase	IKO Spectravap IKO Ultra T-O Underlay IKO Ultra T-O VCL IKO Ultra SA VCL IKO Sealbase	IKO Spectravap IKO Ultra T-O Underlay IKO Ultra T-O VCL IKO Ultra SA VCL IKO Sealbase
Fixing of Vapour Barrier	Fully bonded by torching	Pull away release foil + press or Fully bonded by torching	Pull away release foil + press Fully bonded by torching
Notes: All installation work must be carried out by and in accordance with the manufacturer's installation instructions by trained and licensed IKO roofing contractors, records of whom are kept on the Certificate holder's database. The advise of the certificate holder should be sought for all standard and non-standard installations. During application of the roofing systems, when temperatures are < 5°C, IKO base quadra T/F underlays should be used in conjunction with a bitumen faced PIR insulation.			

Table 5: Typical Applications of Use

5.1 National Standards Authority of Ireland ("NSAI") following consultation with NSAI Agrément has assessed the performance and method of installation of the product/process and the quality of the materials used in its manufacture and certifies the product/process to be fit for the use for which it is certified provided that it is manufactured, installed, used and maintained in accordance with the descriptions and specifications set out in this Certificate and in accordance with the manufacturer's instructions and usual trade practice. This Certificate shall remain valid for five years from date of issue or revision date so long as:

- (a) the specification of the product is unchanged.
- (b) the Building Regulations 1997 to 2023 and any other regulation or standard applicable to the product/process, its use or installation remains unchanged.
- (c) the product continues to be assessed for the quality of its manufacture and marking by NSAI.
- (d) no new information becomes available which in the opinion of the NSAI, would preclude the granting of the Certificate.
- (e) the product or process continues to be manufactured, installed, used and maintained in accordance with the description, specifications and safety recommendations set out in this certificate.
- (f) the registration and/or surveillance fees due to NSAI Agrément are paid.

5.2 The NSAI Agrément mark and certification number may only be used on or in relation to product/processes in respect of which a valid Certificate exists. If the Certificate becomes invalid the Certificate holder must not use the NSAI Agrément mark and certification number and must remove them from the products already marked.

5.3 In granting Certification, the NSAI makes no representation as to;

- (a) the absence or presence of patent rights subsisting in the product/process; or
- (b) the legal right of the Certificate holder to market, install or maintain the product/process; or
- (c) whether individual products have been manufactured or installed by the Certificate holder in accordance with the descriptions and specifications set out in this Certificate.

5.4 This Certificate does not comprise installation instructions and does not replace the manufacturer's directions or any professional or trade advice relating to use and installation which may be appropriate.

5.5 Any recommendations contained in this Certificate relating to the safe use of the certified product/process are preconditions to the validity of the Certificate. However, the NSAI does not certify that the manufacture or installation of the certified product or process in accordance with the descriptions and specifications set out in this Certificate will satisfy the requirements of the Safety, Health and Welfare at Work Act 2005, or of any other current or future common law duty of care owed by the manufacturer or by the Certificate holder.

5.6 The NSAI is not responsible to any person or body for loss or damage including personal injury arising as a direct or indirect result of the use of this product or process.

5.7 Where reference is made in this Certificate to any Act of the Oireachtas, Regulation made thereunder, Statutory Instrument, Code of Practice, National Standards, manufacturer's instructions, or similar publication, it shall be construed as reference to such publication in the form in which it is in force at the date of this Certification.

NSAI Agrément

This Certificate No. **24/0444** is accordingly granted by the NSAI to IKO Limited Ltd on behalf of NSAI Agrément.

Date of Issue: 11th September 2024

Signed



Kevin D. Mullaney

Director of Certification, NSAI

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