



PROJECT DETAILS	
Project Name	
Address	
Specification Number	
IKO Guarantee Number	

INSTALLING CONTRACTOR DETAILS	
Installing roofing contractor	
Address	
Contact name	
Contact telephone	

### IKO MAINTENANCE OF FLAT ROOFS - GUIDANCE NOTE

A routine care and maintenance program is fundamental to the long term performance of the waterproofing system. You as the building owner are responsible for ensuring that regular maintenance of the waterproofing is undertaken in line with this document.

As with all Flat roofing and waterproofing systems it is essential proper and adequate maintenance is undertaken at routine intervals to ensure long term performance and life expectancy. This is an integral part of the terms and conditions of any guarantee. Any defects found to the waterproofing must be highlighted and notified to IKO Customer Support department at [customersupport@iko.com](mailto:customersupport@iko.com) in accordance with the terms and conditions of the IKO guarantee.

Safe access to the roof must only be allowed by arrangement and supervision of the person responsible for the building. The building owner or client is responsible for providing safe access to and from the roof. All persons given access to the roof must be instructed to use dedicated access and walkways and fully advised on health and safety procedures required for each roof area.

#### MAINTENANCE, INSPECTION, TESTING AND REPAIR

A flat roof or waterproofing system, which has been designed and installed in accordance with the recommendations of British Standard BS6229 - Flat roofs with continuously supported flexible waterproof coverings – Code of practice and relevant flat roofing trade associations guidance, should be expected to provide a trouble-free service for many years, provided it is properly maintained. Maintenance inspections should be carried out Bi-annually by a competent person.

IKO Technical Services recommend that their flat roofs and waterproofing systems are inspected and maintained in accordance with the guidelines given in BS6229.

BS6229 gives guidance on the content of maintenance manuals and the scope and frequency of routine maintenance inspections applicable to all flat roofing and waterproofing finishes. A flat roof should be inspected at least twice yearly; in autumn to ensure it is clear of leaves, dirt and debris, outlets are not blocked and the roof is free draining; in spring to discover and rectify any damage due to weather. Green, blue and other specialist roofs should be inspected in accordance with the designer's original inspection plan.

Any inspections of a roof should include the interior of the building for signs of water penetration or condensation and for alterations which might have affected the roof. Externally, abutting constructions, which can affect the performance of the roof, should also be inspected.

An inspection should also be carried out if one or more of the following situations have occurred.

- Recent construction on or adjacent to the roof
- New roof mounted equipment installed on the roof
- Unusual weather conditions, such as very high winds or unusually heavy snow
- Following a fire, vandalism or other known damage to an adjacent roof area

#### **MAINTENANCE CHECKLIST**

*During regular maintenance inspections the whole of the roof and waterproofing should be systematically checked and a note made of any items requiring attention, supported with photographic or video evidence. For example:*

- a) *General area - Examine the whole of the general roof area and note any areas of stress, any signs of blistering, ruckling or any indications that the roofing is detached from the substrate. Record the extent and type of any defects and notify IKO Technical services of such findings. Check for any loose or unbonded laps and areas of repair.*
- b) *General area – check for signs of debris, leaves, algae and areas of overhang trees. Lightly sweep and remove from the waterproofing finish, check any internal rainwater outlets for signs of blockages replace any missing leaf guards for drainage locations*
- c) *Drainage - Inspect all gutters and rainwater outlets and discharge points. Ensure they are clean and that water discharge from the roof is uninterrupted. Carefully examine the junction between the roof waterproofing and rainwater outlets. Note any apparent defects or signs of silting or ponding. Check internal rainwater goods for blockages or build- up of debris. Check leaf guards are secure and in place.*
- d) *Internal - Check inside the building for any staining or indication of damp penetration or condensation, which could be related to the roof.*
- e) *Surface protection - Check that the surface protection layer is in place and complete. Note any wind scour, displacement of ballast, cracked or damaged tiles. Check for any wind damage to the waterproofing or components upon the roof.*
- f) *Upstands - Check that upstands are intact, fully adhered/attached and adequately protected. Note any areas of distortion or stress and any blistering.*
- g) *Flashings - Check that flashings are intact and fully secured with sealant/mastic pointing complete.*
- h) *Penetrations - Inspect the membrane around each penetration; ensure that flashings and upstands are intact. Check if further penetrations have been undertaken since the waterproofing had been completed.*
- i) *Edge trims - Check for signs of movement, displacement, or stress, particularly at the joint between the roof waterproofing and trims.*
- j) *Capping's - Check for signs of movement, displacement, or stress.*
- k) *Protection - Restrict and prevent unauthorised access to the roof, to prevent the possible risk of abuse and damage to the roof. Allow only competent persons to access the roof, and those undertaking any repair works are specifically trained and experienced in the type of waterproofing involved.*
- l) *Damage - check for damage to the waterproofing by other trades, such as cable penetrations, satellite dishes or PV solar panels, or vandalism, ducting installed or roof mounted equipment after the waterproofing has been completed.*

## **OTHER ITEMS**

Where the waterproofing finishes are used as access walkways, terraces or means of access or egress and recreational areas will be subject to wear and tear depending upon the levels of foot traffic encountered. Deformation from excessive loading and use is not covered under the IKO guarantee. Areas in regular use may require further or additional protection from wear and tear.

Any solar reflective coatings used are deemed as a maintenance requirement and additional coats should be undertaken every 5-7 years in accordance with the manufacturer's recommendations. Any coating used should be referred to IKO Technical department prior to its use. Solar reflective coating must be free from materials deleterious to the waterproofing i.e. metallic pigments, non-compatible solvent and water based emulsions.

Mastics, sealants, and gaskets are deemed as maintenance items and not covered by the IKO guarantee, consideration to any necessary repair or replacement should be undertaken every 5 years.

Alterations to the roof that affect the waterproofing, including addition of solar panels, services and cabling, penetrations such as rooflights or vent etc, should be referred to IKO Technical department for approval prior to undertaking any works, and works being undertaken by the original installing roofing contractor.

During any maintenance to any roof mounted equipment or components of the building fabric, the waterproofing must be protected against damage caused by spillages of solvents, oils, fuels etc. or sharp objects such as nails, fixings, glazing etc.

The roof waterproofing must not be used as a storage area.

Where bird guano is an evident problem, necessary precautions to prevent nesting should be allowed for. Anti-bird netting or other deterrents should be allowed for. Where guano has become evident a more frequent inspection regime should be undertaken to prevent any build up upon the waterproofing.

It is recommended that where the roof area is surrounded by trees, or is prone to guano and other items it may be deemed to require a more regular inspection regime than the guidelines given in BS6229.

Accidental damage to the waterproofing must be notified to IKO [customersupport@iko.com](mailto:customersupport@iko.com) immediately to allow a practical method of repair to be undertaken.

## **REPAIRS**

Where an IKO Guarantee has been issued, no repairs of the roof should be carried out without first referring to IKO Customer Support department as described in the guarantee text. All repairs or modifications must be agreed in writing by IKO Technical Services and undertaken by the original installing contractor.

### **Repair procedure**

Repairs should only be carried out after the type and extent of any defects have been noted and their underlying cause identified. The intention of repair work should be to restore the roofing to its original condition and ensure continuing performance. All repairs should therefore be carried out in materials, and with accessories, compatible with the original installation.

Any surface protection which has been misplaced should be made good so that the whole waterproofing membrane is covered.

Any repair works must allow for the temporary removal of any roof mounted equipment, roof finishes including green roof, ballast or paving etc and their temporary storage on the roof and their subsequent reinstatement or replacement.

Loose flashings should be adequately secured and any defective pointing made good.

Areas of upstand which are detached should be repaired, re-adhered/attached as appropriate and, if necessary, protected by the provision of an additional waterproofing finish.

Any defects at penetrations should be carefully cut out, the area thoroughly cleaned and primed and new seal formed between the membrane roofing and the penetration.

Where a movement of edge trims has caused stress failure of the waterproofing, the covering should be removed. The ends of the edge trim should be checked to ensure they are adequately secured to the substrate in accordance with the manufacturer's instructions, and the membrane roofing should then be replaced.

Blisters should generally be left undisturbed, but if they contain water or are causing distress to the membrane, they should be cut out and made good in accordance with IKO recommendations.

All silting, debris and plant life should be removed and the whole of the roof left clean. In areas of algal or moss growth, it might be advantageous to apply a compatible fungicidal wash.

On completion of all necessary repair work the roof should be re-inspected and the nature and extent of all repair works recorded.

#### **IKO MAINTENANCE SCHEDULE**

A record and schedule, or log of annual maintenance and any observations made, must be kept by the Building Owner or their representatives to ensure the long term performance of the roof and waterproofing as defined above, and as a requirement of the terms and conditions of the guarantee.

An IKO maintenance check list is issued with the guarantee upon completion of the works, and should be completed and maintained by the building owner or their representative. It is the responsibility of the building owner or their representatives to notify the IKO Customer Support department as soon as any potential defect arises.

#### **CLEANING:**

The flat roof or waterproofing system must be maintained free of debris that may result in damage. When necessary, low pressure tap water dispensed from a hose and/or brooms may be used to remove dirt and debris from the surface of the waterproofing.

Where permissible mild detergents may be used to clean surfaces, then use clean water to remove the detergent. Care should be taken not to allow dirt or debris or other inappropriate materials from entering the drainage system that may cause blockages.

Tools that may damage the roofing or waterproofing system, such as shovels and rakes, should not be used. High pressure hoses should also not be used.

If it is noticed that there are problems with birds nesting or roosting on the roof, then Anti-Bird netting/wire or other deterrents should be put in place. Any installation of these deterrents should be approved by IKO Technical Services before commencement on site, so as to not invalidate the guarantee.

#### **De-icing and snow clearance**

The use of rock salt (sodium chloride) on Reinforced bitumen, liquid applied roofing systems and polymeric single ply should be avoided. On IKO Permasec hot melt waterproofing finished with paving or mastic asphalt roofing systems to access walkways, the sparing use of rock salt will not be detrimental. The suitability of any other proprietary de-icing product should be confirmed by IKO technical department before use.

#### **Note:**

For areas of the waterproofing system not designated for traffic, IKO would recommend the building owner or their representatives limit access to authorised personnel only and require all persons accessing the roof to register or sign in. It

is good practice to post a sign at all access points that include the following statement “STOP. ACCESS RESTRICTED TO AUTHROISED PERSONNEL ONLY”.

### **GREEN FLAT ROOFS**

For further guidance on the maintenance of green flat roofs, please refer to the GRO (Green Roof Organisation) Green Roof Code Section 5 [Downloads | Green Roof Organisation](#) and project specific scheme details.

### **MAINTENANCE MANUAL:**

A maintenance manual should be prepared, preferably at the time of initial construction, which includes the following basic information and guidance on the maintenance items and scheduling.

- A set of ‘as built’ drawings including subsequent changes
- A specification, calculations and dates of controlling documents used, including information on the proposed use of the building and any special features such as psychometric conditions, any areas subject to high loads and fragile roof materials
- Record of any surveys or tests carried out on the roofing system whether before handover or after occupation
- A list of designers, contractors, subcontractors and suppliers involved.
- Copies of warranties, guarantees etc including any schedule of requirements and conditions.
- Maintenance check lists, tasks and frequency and type of survey, and photographic records.



## FLAT ROOF MAINTENANCE CHECK LIST

This form is to be completed Bi-annually by the property manager/building owner or their maintenance department/contractor with accompanying photographic evidence.

This form has been designed to assist the property manager / building owner to ensure that maintenance to the roof is carried out on an annual basis in accordance with the IKO maintenance guidance notes.

Any problems with the waterproofing integrity of the roof should be reported immediately to the IKO Customer Support Department in accordance with the terms and conditions of the guarantee.

For all IKO Single Point Guarantee offers, **IKO and the original installing roofing contractor should be invited by the building owner or their representative to attend every 5<sup>th</sup> year of the guarantee term** by forwarding any such requests to [customersupport@iko.com](mailto:customersupport@iko.com)

Action Point	Comments
<b>General area</b> – Examine the whole of the general roof area and note any areas of stress, any signs of blistering, ruckling or any indications that the roofing is detached from the substrate. Record the extent and type of any defects and notify IKO Technical services of such findings. Check for any loose or unbonded laps and areas of repair.	
<b>General area</b> – Check for signs of debris, leaves, algae and areas of overhang trees. Lightly sweep and remove from the waterproofing finish, check any internal rainwater outlets for signs of blockages replace any missing leaf guards for drainage locations	
<b>Drainage</b> - Inspect all gutters and rainwater outlets and discharge points. Ensure they are clean and that water discharge from the roof is uninterrupted. Carefully examine the junction between the roof waterproofing and rainwater outlets. Note any apparent defects or signs of silting or ponding. Check internal rainwater goods for blockages or build- up of debris. Check leaf guards are secure and in place.	
<b>Internal</b> - Check inside the building for any staining or indication of damp penetration or condensation, which could be related to the roof.	
<b>Surface protection</b> - Check that the surface protection layer is in place and complete. Note any wind scour, displacement of ballast, cracked or damaged tiles. Check for any wind damage to the waterproofing or components upon the roof.	

<b>Upstands</b> - Check that upstands are intact, fully adhered and adequately protected. Note any areas of distortion or stress and any blistering	
<b>Flashings</b> - Check that flashings are intact and fully secured with sealant/mastic pointing complete	
<b>Penetrations</b> - Inspect the membrane around each penetration; ensure that flashings and upstands are intact. Check if further penetrations have been undertaken since the waterproofing had been completed	
<b>Edge trims</b> - Check for signs of movement, displacement, or stress, particularly at the joint between the roof waterproofing and trims	
<b>Capping's</b> - Check for signs of movement, displacement, or stress	
<b>Damage</b> - Check for damage to the waterproofing by other trades, such as cable penetrations, satellite dishes or PV solar panels, or vandalism, ducting installed or roof mounted equipment after the waterproofing has been completed	
<b>Other</b>	
<b>Inspected By</b>	
<b>Date of inspection</b>	