



PROJECT DETAILS	
Project Name	
Address	
Specification Number	
IKO Guarantee Number	

INSTALLING CONTRACTOR DETAILS	
Installing roofing contractor	
Address	
Contact name	
Contact telephone	

IKO MAINTENANCE OF PERMAPARK VEHICLE DECKS - 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 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 vehicle deck. All persons given access must be instructed to use dedicated access and walkways and fully advised on health and safety procedures required.

MAINTENANCE, INSPECTION, TESTING AND REPAIR

A Permapark vehicle deck, which has been designed and installed in accordance with the recommendations of British Standard BS6229 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 Permapark vehicle deck waterproofing / surfacing 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 Permapark vehicle deck 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. Vehicle decks exposed to high levels of pollution or in close proximity to trees might require more frequent inspections.

Any inspections of a Permapark vehicle deck should include the interior of the building or underside of the deck for signs of water penetration or condensation and for alterations, which might have affected the vehicle deck. Externally, abutting construction, which can affect the performance of the vehicle deck, 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 vehicle deck
- Unusual weather conditions, such as very high winds or unusually heavy snow.
- Following a fire, vandalism or other known damage to an adjacent structure.

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 vehicle deck area and note any areas of stress, any signs of blistering, ruckling. Record the extent and type of any defects and notify IKO Technical services of such findings. Check for any areas of repair.*

NB: Some de-bonding of the Permapark Paving Wearing Course bay joints may occur. The open bay joints will not normally affect the integrity of the underlying Permapark Waterproofing and therefore do not constitute a risk to water ingress in the short term. However, it is recommended that any open joints are effectively repaired as part of the vehicle deck maintenance program.

NB: Being a thermoplastic material, the Permapark Paving Wearing Course may be liable to surface marking under vehicle loading during periods of high ambient temperatures, especially in the early stages of its serviceable life. This should not be regarded as a defect and will not affect the long term waterproofing and wearing properties of the system.

NB: Mastic asphalt is a thermoplastic material and expands and contracts slightly with changes in ambient temperature. This thermal movement is not usually noticeable but can often be observed in large vehicle deck applications where the Permapark Paving Wearing Course is terminated in the horizontal plane against rigid items such as linear drainage channels and expansion joints. Contraction of the wearing course at these locations should not be regarded as a defect or a risk to water ingress as the integrity of the underlying waterproofing detail will not be affected.

- b) *Drainage - Inspect all gutters and rainwater outlets and discharge points. Ensure they are clean and that water discharge from the vehicle deck is uninterrupted. Carefully examine the junction between the Permapark 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.*
- c) *Internal - Check inside the building or underside of the deck for any staining or indication of damp penetration or condensation, which could be related to the vehicle deck.*
- d) *Surface protection - Check that any surface protection is in place and complete. Check for any wind damage to the waterproofing or components upon the vehicle deck.*
- e) *Upstands - Check that upstands are intact, fully adhered and adequately protected. Note any areas of distortion or stress and any blistering.*
- f) *Flashings - Check that flashings are intact and fully secured with sealant/mastic pointing complete.*
- g) *Penetrations - Inspect the waterproofing around each penetration; ensure that flashings and upstands are intact. Check if further penetrations have been undertaken since the waterproofing had been completed.*
- h) *Edge trims - Check for signs of movement, displacement, or stress, particularly at the joint between the waterproofing and trims.*
- i) *Capping's - Check for signs of movement, displacement, or stress.*

- j) *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

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 bitumen ie 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 vehicle deck that affect the waterproofing, including addition of solar panels, services and cabling, penetrations such as crash barriers, vents 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 vehicle deck must not be used as a storage area.

Accidental damage to the Permapark vehicle deck system must be notified to IKO customersupport@iko.com immediately to allow a practical method of repair to undertaken.

REPAIRS

Where an IKO Guarantee has been issued, no repairs of the vehicle deck 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 vehicle deck to its original condition and ensure continuing performance. All repairs should therefore be carried out by the original installing contractor in materials, and with accessories and standards of workmanship, compatible with the original installation.

All repairs to be undertaken in accordance with the recommendations contained in BS8218 (Code of practice for Mastic Asphalt Roofing) Clause 11.3.

All repair work should be performed by a qualified mastic asphalt operative. If it is necessary to remove an area of mastic asphalt, the line of the cuts should be covered with molten mastic asphalt until the underlying material has softened. When the area is sufficiently soft, it should be removed carefully. The mastic asphalt should not be removed until this has taken place. Due to the hardness of mastic asphalt paving, electrical or mechanical disc cutters or planer may be used in the removal of defective areas. In no circumstances should a hammer and chisel be used to cut cold mastic asphalt.

When jointing new mastic asphalt to existing mastic asphalt, the principle of the lapped joint should be observed in each individual layer to ensure a distance of at least 75mm from the junction in the preceding coat. . The perimeter of existing mastic asphalt should be softened to permit removal of material for a width of not less than 75 mm to form a stepped joint in each coat. The use of a forced flow hot air torch, or the controlled use of a gas gun may be acceptable for specific requirements; in the case of the latter extreme care should be taken to avoid continuous contact between the naked flame

and the mastic asphalt.

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 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 vehicle deck waterproofing and the penetration.

Where a movement of edge trims has caused stress failure of the Permapark 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 Permapark Waterproofing should then be replaced.

Blisters which are causing distress to the Permapark system should be cut out and the area reinstated by the original installing contractor. Excessive blistering may be indicative of more serious underlying problems and the substrate examined to establish the cause.

All silting, debris and plant life should be removed and the whole of the vehicle deck 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 vehicle deck 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.

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.

De-icing and snow clearance

The use of rock salt (sodium Chloride) to de-ice vehicular decks will not be detrimental to IKO Permapark system. The suitability of any other proprietary de-icing product should be confirmed by IKO Before use. Any installed Permapark vehicle deck system will be at risk of mechanical damage from snow clearing procedures which involve the use of ploughs; diggers etc. and these should be prohibited from the vehicular deck.

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.



PERMAPARK 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 5th year of the guarantee term** by forwarding any such requests to customersupport@iko.com

Action Point	Comments
General area - Examine the whole of the general vehicle deck area and note any areas of stress, any signs of blistering, ruckling or de-bonded bay joints. Record the extent and type of any defects and notify IKO Technical services of such findings. Check for any areas of repair.	
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.	
Internal - Check inside the building or underside of the deck for any staining or indication of damp penetration or condensation, which could be related to the vehicle deck.	
Surface protection - Check that any surface protection is in place and complete. Check for any wind damage to the waterproofing or components upon the vehicle deck.	
Upstands - Check that upstands are intact, fully adhered and adequately protected. Note any areas of distortion or stress and any blistering	
Flashings - Check that flashings are intact and fully secured with sealant/mastic pointing complete	
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	

Edge trims - Check for signs of movement, displacement, or stress, particularly at the joint between the roof waterproofing and trims	
Capping's - Check for signs of movement, displacement, or stress	
Damage - check for damage to the vehicle deck 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	
Inspected By	
Date of inspection	