

## IKO Permapark Waterproof Surfacing System

### Product Information

IKO Permapark is a specially formulated polymer modified mastic asphalt waterproofing and surfacing system.

Consisting of Permapark Waterproofing and Permapark Paving, the system is suitable for a wide range of applications including pedestrian walkways, car parks, HGV service decks and railway platforms.

Permapark Waterproofing is a polymer modified mastic asphalt waterproofing consisting of polymer modified bitumen and graded limestone aggregates.

Permapark Paving is a polymer modified mastic asphalt paving consisting of polymer modified bitumen, graded limestone fine aggregate and either 6mm or 10mm igneous coarse aggregate. Size and percentage of coarse aggregate will depend on laid thickness.

Both products are supplied directly to site in purpose built hot charge transporters capable of holding up to 18 tonnes of molten material. Alternatively, Permapark Waterproofing and Permapark Paving can also be supplied in nominal 20 kg blocks, (similar to traditional asphalt) for detail work and small horizontal areas.

**Table 1**

	Product Codes	
	Permapark Waterproofing	Permapark Paving
Block (20kg)	4190000	4490000
Hot Charge	5190000	54900025 54900030 54900035 54900040 54900045 549025MS 549025MN 549030MS 549030MN

Storage of Permapark block material is the same as for traditional asphalt.



NB: Permapark Paving block material will require coarse aggregate to be added to the mixer during re-melt in accordance with the following table.

**Table 2**

Permapark Paving Thickness	Percentage and size of coarse aggregate addition.
25mm	30% - 6mm
30mm	35% - 10mm
40mm	45% - 10mm

### Features & Benefits

- BBA Certified – 92/2792
- Advanced polymer modification
- Completely seamless waterproofing
- Long term durability
- Enhanced product stability across a wide temperature range
- High fatigue resistance - suitable to receive heavy goods vehicles

- Traditional application
- Manufactured in the UK under BS ISO 9001 Quality Assurance Scheme
- Up to 25 years IKO Material & Workmanship Guarantee

## Installation

IKO Permapark must be installed by an IKO Registered Contractor experienced in the techniques of laying mastic asphalt. Works should be carried out in accordance with BS 8000:Part 4:1989, BS 8218:1998 and IKO instructions.

**NB: Reference should be made to the Deck Specification Options contained in the IKO Permapark Specification and Design Guide.**

Permapark blocks should be re-melted in a purpose made asphalt mixer. When it has attained a molten condition it should be agitated continuously to ensure a uniform consistency. When re-melting Permapark Paving blocks, coarse aggregate needs to be added to the mixer during re-melt in accordance with Table 2.

The laying temperature of Permapark Waterproofing should not exceed 230°C. The maximum laying temperature of Permapark Paving is determined by the coarse aggregate content. Refer to IKO for guidance.

### Structural Base

Structural decks to receive Permapark can be either in-situ concrete, in-situ concrete with sand/cement screed, Lytag Grade 20 Concrete with structural topping.

In-Situ concrete for roof decks shall be specified and produced in accordance with BS EN 2006:2015 and installed in accordance with BS13670:2009 and the National Structural Concrete Specification.

Decks to receive IKO Permapark must be true, plane and even, free from ridges, hollows and indentations, and should provide a fall of 1 in 60 to ensure good drainage to outlets. The most suitable surface is provided by a skip float or power float finish.

To reduce the risk of coarse aggregate settlement it is important to provide sufficient thermal mass directly below IKO Permapark allowing for rapid heat dissipation during laying. It therefore follows that "insulating" screeds should be avoided.

### Bay Jointing

Splayed steel gauges must be used to ensure correct thickness of IKO Permapark Paving according to the selected specification and to provide an increased

bonding edge between adjacent bays of IKO Permapark Paving. Normal bay jointing techniques of warming and cleaning the edge of the previously laid area must be carried out to ensure fusion between the bays.

### Margin infill to abutments

The IKO Permapark Paving should terminate approximately 100mm from abutments and the margin infilled with IKO Permapark Waterproofing. A second angle fillet is then formed at the base of the skirting to complete the detail.

### Detailing

In the case of concrete, brickwork and similar substrates a two coat IKO Permapark Waterproofing skirting is applied to all upstands to a nominal thickness of 13mm and a minimum height of 150mm. A two coat angle fillet should be formed at the junction of the vertical and horizontal waterproofing. The top of the skirting is splayed and turned into a chase 25mm x 25mm unless the waterproofing continues horizontally. In certain circumstances differential movement between the parapet and structural deck must be catered for by the provision of a free-standing upstand and cover flashing.

### Surface Finish

The IKO Permapark Paving layer should be well rubbed with clean, sharp sand during final floating of the hot asphalt. In addition, a dimpled surface may be achieved by the use of a crimping roller.

Where the anticipated gross vehicle weight exceeds 7.5 tonnes, 6mm, 14mm or 20mm Pre-coated chippings must be rolled into the surface at the spread rates specified in the IKO Permapark Specification and Design Guide. In this case IKO Permapark Paving would not be sand rubbed. However an uneven scatter of chippings must be accepted making this finish less attractive than the alternatives.

For normal car park usage IKO Permapark does not require protection against minor oil, petrol or grease contamination but prolonged contact may cause localised softening of the binder. Proprietary coatings are available for high risk areas or where a coloured finish is required.

## Durability

With proper maintenance, IKO Permapark's life expectancy is in excess of 25 years.

## Product Data

### Vapour resistivity

The Vapour resistivity is very high and can be assumed to be not less than 100,000 MN/g.

### Resistance to water

IKO Permapark will adequately resist the passage of water and water vapour to the inside of the building. It is completely impervious to water.

### Resistance to Fire

The reaction to Fire Classification for flooring of IKO Permapark Paving is BFL-S1.

### Resistance to movement

Permapark is thermoplastic and is capable of accommodating normal movements encountered in well-designed building structures.

Structural movement joints within the roof will require the incorporation of a proprietary expansion joint which is compatible with a mastic asphalt waterproofing and surfacing system.

### Coefficient of cubic expansion

The coefficient of cubic expansion is  $15 \times 10^{-5}/^{\circ}\text{C}$ .

### Skid resistance

Sand rubbed finish	Crimped finish
TRRL rubber (dry 84)	TRRL rubber (dry 87)
TRRL rubber (wet 55)	TRRL rubber (wet 74)

### Chemical resistance

IKO Permapark has good chemical resistance to hydraulic fluids and aqueous solutions of acids and alkalis.

It is also unaffected by contact with an alkaline substrate and has good short term resistance to minor spillages of oil, petrol and grease contamination.

### Colour fast

IKO Permapark tones down slightly due to surface oxidation, giving a slightly lighter appearance in service.

### Wheel tracking

Less than 1mm/hour @ 45°C.

### Frost

IKO Permapark is unaffected by frost and de-icing salts.

## Resistance to loading

Permapark can accept, without damage, pedestrian and vehicle loads. Being a thermoplastic material, Permapark Paving 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.

## Maintenance

As with all roofing systems, proper maintenance is essential to the long-term performance of the Permapark installation.

Permapark installations should be inspected twice yearly, preferably in the spring and autumn, and/or after extremes of weather conditions.

Inspections should be carried out generally in accordance with BS 6229. Reference should also be made to the IKO Permapark Vehicle Deck Inspection, Maintenance & Guarantee Guidance Notes Document.

## Guarantee

Permapark is covered by a Material and Workmanship Guarantee for up to a period of 25years.

## 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.