

# Hyload Tanking Membranes 3100 & 3100HD

Product Data Sheet  
September 2013

## High Performance Torch-applied Tanking Membranes

### Benefits

- BBA certification
- Heat bonded lap joints providing optimum lap security
- Ideal for cold weather tanking conditions
- 3100HD is self-protecting eliminating the need for protection board
- Strong, tough and flexible at low temperatures

### Description

Hyload Tanking Membrane 3100 has a tough, non-woven polyester reinforcement and is coated both sides with SBS polymer modified bitumen. The upper and lower surfaces are protected by a thin heat dispersible polyethylene film.

Hyload Tanking Membrane 3100HD has a similar construction but with a tough, non-woven polyester facing bonded to the upper surface in place of the polyethylene film. This facing provides built-in protection from backfilling and eliminates the need for separate protection board, screeds or other protective measures.

Both products are applied with the use of a gas torch.

### Product details

	3100	3100HD
Roll length	10m	10m
Roll width	1m	1m
Thickness	3.0 mm	3.7 mm
Weight	3.4 kg/m <sup>2</sup>	3.6 kg/m <sup>2</sup>
Lap width (minimum)	100 mm	100 mm

Typical Physical Properties	3100	3100HD
Tensile strength (N/50mm)*		
Machine direction	621	1550
Cross direction	507	1200
Elongation (%)		
Machine direction	37	24
Cross direction	63	33
Low temperature flexibility	-15 °C	-15 °C

\*BS EN-12311-1:2000/BS EN-1109:2000

### Site installation

Hyload Tanking Membrane should be installed in accordance with the recommendations contained in BS 8102:2009 Code of practice for protection of below ground structures against water from the ground, the installation instructions and relevant detail design produced by IKO.

All surfaces must be smooth, clean and dry. Loose material and sharp protrusions should be removed mechanically. Concrete and renders should be cured and dry. Un-rendered brickwork must be flush pointed to give a smooth surface without sudden changes in profile.

Regarding heat bonding equipment for horizontal work, an approximate 500mm neck tube and 50mm diameter propane gas burner is commonly used. For vertical and detailing work, an approximate 200mm neck tube and 35mm diameter propane gas burner is appropriate. During heat bonding, ensure that a flow of bitumen is

maintained beneath the roll and that a bead of bitumen is extruded from edges and lap joints demonstrating that a seal has been obtained.

### **Precautions on site**

Site safety procedures and requirements must be observed when applying heat bonded materials.

If there is any uncertainty as to the method or practice of installing the product using the heat bonding technique, seek the manufacturer's advice.

### **Priming**

If loose laying, primer is not required. When bonding, all areas must be first primed with IKOpro Quick Dry Bitumen Primer. Ensure primer is well mixed before using. Apply primer by brush at the rate of 3m<sup>2</sup> to 4m<sup>2</sup> per litre. Allow to dry completely. The newly applied primer should be protected from contamination.

### **Angles and corners**

These should be provided with a suitable sand/cement fillet and reinforced with a 330mm wide strip of Hyload Tanking Membrane 3100 applied equidistant across the junction prior to application of the main tanking membrane.

### **Overlaps**

End and side laps should be minimum 100mm wide and torch welded. In the case of Hyload Tanking Membrane 3100HD, end laps in both horizontal or vertical applications must be made over a 330mm wide strip of Hyload Tanking Membrane 3100 previously applied to the substrate.

### **Horizontal application – full bond**

Unroll and set out the first roll of membrane as required. Each roll should be rolled back halfway and then rolled forward, fully bonding to the substrate and torch welding the side laps which should be minimum 100mm wide. Repeat for the second half of the roll. Subsequent rolls are to be set out with staggered end laps.

### **Horizontal application – loose laid**

Unroll and set out the first roll of membrane as required. Subsequent rolls are set out with staggered end laps. Each roll should be rolled back halfway and then rolled forward, torch welding the overlap which should be minimum 100mm wide. Repeat for the second half of the roll. If necessary, the rolls can be secured into position by adhering each end to the substrate by torching.

### **Horizontal protection**

Hyload Tanking Membrane 3100 should be protected as soon as possible using Hyload 3mm Protection Boards or a sand/cement screed to prevent damage. Hyload Tanking Membrane 3100HD does not require similar protection measures.

### **Vertical application – Hyload Tanking Membrane 3100**

Cut the membrane to the appropriate length. Starting at the bottom, torch weld the membrane to the upstands remaining from the horizontal membrane application, allowing a minimum of 100mm overlaps between the two sheets. Then, working upwards, torch apply the material to the previously primed surface. Repeat the procedure, allowing minimum 100mm over laps which should be torch welded.

Where the vertical sheets terminate, the uppermost end should be mechanically fixed or sealed into a chase. When backfilling materials are to be used, the Hyload Tanking Membrane 3100 should be protected immediately with Hyload 3mm Protection Boards or Plasdrain 6 combined protection and drainage layer.

## Vertical application – Hyload Tanking Membrane 3100HD

Cut the membrane to the appropriate length. Starting at the bottom, torch weld the membrane to the joint reinforcement/butt strip upstands remaining from the horizontal membrane application, allowing a minimum of 165mm overlap onto the butt strip. Then working upwards, torch apply the material to the previously primed surface. Repeat the procedure, allowing minimum 100mm overlaps which should be torch welded. Where more than one sheet is required to cover a vertical drop, the end laps must be heat bonded over a 330mm wide strip of Hyload Tanking Membrane 3100 previously applied to the substrate.

Where the vertical sheets terminate, the uppermost end should be batten fixed or sealed into a chase. Hyload Tanking Membrane 3100HD, being self-protected does not require additional protection in normal application.

### Storage and handling

Store rolls on end on a level surface, in dry conditions, away from sources of heat and with the selvages uppermost. The rolls must be stored above 5°C prior to use. Care must be taken to ensure that the materials do not become contaminated by hydrocarbons or other organic solvents.

Suitable Personal Protective Equipment (PPE) should be worn when using this material and suitable firefighting equipment must be available. Adequate ventilation must be ensured at all times during application. These issues must be addressed as part of the Hot Works Permit and Method Statement procedures.

### Specification clauses

Full product specifications in NBS format are available.

IKO also provides a design facility where AutoCAD drawings can be prepared to support any material specifications. Our Technical Services Department also provides technical advice via the telephone and email.

### Other products

Full product literature, health and safety, and technical datasheets are available as downloads from our website [www.ikogroup.co.uk](http://www.ikogroup.co.uk) or on request by email: [marketing@ikogroup.co.uk](mailto:marketing@ikogroup.co.uk)

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