

# MasterSeal<sup>®</sup> HLM 5100TIX

Water-based, single component, bitumen free thixotropic liquid applied waterproofing membrane

## DESCRIPTION

**MasterSeal HLM 5100TIX** is a single component, bitumen free water based, polymer waterproofing membrane that cures by crosslinking to form a tough membrane. **MasterSeal HLM 5100TIX** protects structures from water penetration while remaining flexible to handle the nominal expansion and contraction of substrates.

**MasterSeal 5100TIX** meets the requirements of:

- AS/NZS 4858:2010
- AS3740:2010
- *Green Building Council of Australia in accordance with SCAQMD Method 304-91 Determination of Volatile Organic Compounds (VOC)*

## RECOMMENDED USES

**MasterSeal HLM 5100TIX** is used for waterproofing of vertical areas including but not limited to: exterior walls, below grade concrete and block work, planter boxes, lift pits and between concrete slab waterproofing applications.

**MasterSeal HLM 5100TIX** is not suitable for direct sticking of tiles; the application of a screed is recommended if tiling is desired. **MasterSeal HLM 5100TIX** is not suitable for lining water retaining structures.

## FEATURES AND BENEFITS

- **Able to move with structure** - elastomeric and flexible with good tensile strength.
- **Suitable for constantly wet conditions with drainage** - once cured will not re-emulsify.
- **Inert when cured** - resists bacterial attack and salts found in ground waters.
- **Monolithic** - eliminates lapping, seaming, and precutting
- **Tough and durable** - long-term protection
- **Good adhesion to a wide range of substrates** - including concrete, render, masonry, fibre cement, sheet, timber, clay brick, concrete block, aerated concrete, and treated metal.
- **Root-resistant barrier** - suitable for planter boxes and garden beds.
- **High viscosity thixotropic liquid** - applicable for both horizontal and vertical surfaces (walls & floors).

## PROPERTIES

Supply form	High viscosity liquid
Colour /Gloss Level	Black/ Matt
Density (approx.)	1.25 kg/litre
Solids Content	80 ± 0.5% v/v
Application Temperature (ambient and substrate)	5°C-35°C
Drying time @ 23°C / 50% RH	
Touch Dry	2 hours
Re-coating interval	2-4 hours
Serviceable (backfilling)	24 hours
Full cure	7 days
Elongation	>440%
Water Vapour transmission	0.4g/24h/m <sup>2</sup> (ASTM E96)
Shore A hardness	65
Dry Film Thickness min	1.2mm
VOC level (SCAQMD Method 304-91)	<93mg/L

## APPLICATION

### Surface Preparation

For best results, all concrete surfaces should be off form or lightly steel troweled to a flat, uniform surface. A light broom finish on horizontal areas is acceptable. Membrane curing compounds must be mechanically removed. Remove dust, dirt and other contaminants just before or during application. Air-void pockmarks or honeycombs must be opened up and repaired with **MasterEmaco N 102CI** or **MasterEmaco N 5100** to fill the cavities completely.

### Priming

Prime with a coat of **MasterEmaco P 157** diluted up to 1:1 with water. A porous substrate like block work may require two coats to ensure pores are sealed or prime with **MasterTop 1116** for critical applications and applications where there is potential for rising vapour.

Surfaces must be dry at the time of application.

### Pre-striping

Before applying the final membrane, all joints, cracks and openings around protrusions must be sealed by caulking or pre-striping (a preliminary coating of **MasterSeal HLM 5100TIX** applied with a trowel or stiff-bristled brush). Allow to dry until tack free (approximately 1 hour at 23°C) before applying final membrane.



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## Static Joints and Cracks

Cracks with a width less than 1.0 mm should be filled by pre-stripping as detailed above. Apply material so it fills and overlaps the joint or crack to a width of 50 mm on each side. Control joints up to 3mm should be filled with a suitable sealant.

## Working or Expansion Joints

All joints over 3 mm must be sealed with a suitable urethane sealant. Any working joint less than 3 mm should be routed to a minimum of 6 mm and filled with a sealant ensuring that the sealant only adheres to the sides by use of a backer rod or bond breaking tape. Prevent the waterproofing membrane from adhering to the surface of the joint sealant by applying a coat of wax or bond breaker tape over the cured sealant and then pre-stripping.

## Floor-wall or internal/external corners

In situations like planter boxes or wall floor joints and non-moving installations a cant bead should be installed. The cant bead can be achieved either through the use of a compatible sealant or a mortar fillet. As an alternative option, this can be achieved using **MasterSeal 970** tape as detailed in the application guide.

## Metal Surfaces

Remove dust, debris, and any other contaminants from vent, drain pipe and post penetrations, reglets and other metal surfaces. Clean surfaces to near white to SA2.5 and prime immediately with **MasterSeal P 692**. For powder coated or other permanent coatings consult your local BASF representative.

## Application

A test application is always recommended before proceeding with entire application.

**MasterSeal HLM 5100TIX** is suitable for horizontal or vertical applications. The material is thixotropic and will spread easily once moved with a brush, roller or trowel. Work out of roller tray to make application easier and the use of a trowel and back rolling especially on horizontal surfaces will make the application easier. Best results are obtained by marking off 20 m<sup>2</sup> areas and evenly spreading the contents of a 15 L unit (0.75mm WFT) with a rubber-edged notched squeegee.

Then repeat for the second coat. For vertical applications, apply two coats by trowel roller or brush at the rate of 0.75L/ m<sup>2</sup>/coat (750ml/ m<sup>2</sup>/coat). Verify the applied thickness with a wet film gauge as the work progresses.

## Curing

Appreciable properties develop within 4–6 hours at 23°C and 50% relative humidity. Recoating can occur after 2 hours at these temperatures. Protect **MasterSeal HLM 5200TIX** from traffic during curing and prior to backfilling.

## Drainage and Protection

For protection during backfill and where hydrostatic pressure is anticipated, use a suitable geotextile and drainage pipes or cells to divert the water.

For protection during backfill only, install protection board as soon as possible following cure of **MasterSeal HLM 5100TIX**. **MasterSeal HLM 5100TIX** has good UV resistance and is compatible with most water based paints. It is good practise to protect the membrane exposed with a water based paint as the aging of the membrane may give a chalky appearance.

### ESTIMATING DATA

Wet Film Thickness @ 1.5mm = 1m<sup>2</sup>/litre (1.2mm DFT)

Coverage per 15 litres is approximately 10m<sup>2</sup>

MasterSeal HLM 5100TIX Wet Film thickness				
L	Thickness in mm /m <sup>2</sup>	m <sup>3</sup>	pails /m <sup>3</sup>	m <sup>2</sup> /mm thickness
15	15mm	(0.015)	67	15 m <sup>2</sup>

### PACKAGING

**MasterSeal HLM 5100TIX** available in 15 litre pails.

### SHELF LIFE

**MasterSeal HLM 5100TIX** has a shelf life of 12 months. Store out of direct sunlight, clear of the ground on pallets protected from rainfall.

### PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Safety Data Sheet (SDS) from our office or our website.



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MasterSeal-HLM5100TIX ANZ-V7-0317

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**NOTE**

Field service where provided does not constitute supervisory responsibility. Suggestions made by BASF either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not BASF, are responsible for carrying out procedures appropriate to a specific application.

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