

MasterSeal[®] HLM 5000 R

Liquid cold-applied waterproofing membrane system

THIS METHOD STATEMENT COVERS PREPARATION AND APPLICATION OF **MASTERSEAL HLM 5000 R** ON TO A CONCRETE SUBSTRATE.

METHOD STATEMENT: MASTERSEAL HLM 5000 R

1. EXAMINATION

- 1.1. Inspect areas involved in work to establish extent of work, access, and need for protection of surrounding construction.
- 1.2. Protect surroundings from primers, patching repair compounds, and waterproofing products, including, but not limited to, windows, roofs, walkways, drives, automobiles, and landscaping.
- 1.3. Conduct all pre-application inspections of site verification with an authorized manufacturer's representative.

2. PREPARATION

- 2.1. Inspect expansion joints to ensure no deteriorated sealant, adhesion loss, or non-elastomeric caulks installed in joints. Repair deficient sealant or caulk with Masterflex sealants
- 2.2. Inspect through-deck penetrations, including electrical, lighting, signage, plumbing, HVAC, and fire sprinkler piping for watertight seal. Repair deficiencies with Masterflex sealants.

2.3. Surface Preparation - Concrete

- 2.3.1. Wet cures new concrete at least 14 days.
- 2.3.2. Remove all dust, dirt, and other contaminants.
- 2.3.3. Open up air void pockmarks and honeycombs to allow **MASTERSEAL HLM 5000R** to fill cavities completely. Purge coat substrates exhibiting excessive pinholes, bug holes, or porosity which might cause blisters or pinholes in membrane.
- 2.3.4. Apply 1.5mm wet film prestripe of **MASTERSEAL HLM 5000 R** to non-moving joints and cracks less than 3mm wide. Fill and overlap joint or crack 75mm on each side. Feather edges.
- 2.3.5. Rout and clean cracks and joints over 3mm wide to minimum of 6mm x 6mm. Install bond breaker tape to prevent adhesion to bottom of joint. Prime joint faces only. Seal with Masterflex sealant. Allow sealant to cure.
- 2.3.6. Apply coat of liquid household carnauba wax over cured sealant to prevent waterproofing membrane from adhering to joint sealant. Allow wax to dry. Prestripe with 1.5mm of **MASTERSEAL HLM 5000R**

2.4. Surface Preparation – Metal

- 2.4.1. Sandblast or wire brush all incidental metal to bright metal. Prime with quality rust-inhibiting metal primer. Allow to dry. Reprime surfaces with **MASTERSEAL PRIMER**
- 2.4.2. Vent, drain pipe, and post penetrations: Clean metal surfaces to bright metal and prime with quality rust-inhibiting metal primer. Allow to dry. Reprime with **MASTERSEAL PRIMER**

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- 2.4.3. Install appropriate cant with Masterflex Sealant. Allow sealant to cure.
- 2.4.4. Prestripe with 1.5 mm of **MASTERSEAL HLM 5000 R**. Apply prestiping 75mm onto concrete substrate and up to level of wearing slab intersection on penetration, vent, or drain pipe

2.5. Surface Preparation to Concrete Block:

- 2.5.1. Ensure substrate is clean.
- 2.5.2. Apply purge coat of **Masterseal HLM 5000R**.

3. DETAIL PREPARATION:

- 3.1. Install sealant cants at rigidly connected wall and slab or plywood deck intersections. Form sealant cant into corner at junction of all horizontal and vertical surfaces (wall sections, curbs, or columns) by priming. Lay 6mm closed-cell backer rod in corner and apply 25mm diameter bead of an appropriate Masterflex sealant. Tool to 45° cant. Allow sealant to cure.
- 3.2. Apply masking tape to vertical sections at appropriate height above sealant cant to provide clean termination at level of wearing slab intersection. Allow for perimeter and isolation joints as shown on drawings. Prime and apply 1.5mm of **MASTERSEAL HLM 5000 R** over treated cant up to masking tape and 100mm onto deck surface.
- 3.3. Install **MASTERSEAL HLM 5000 R** high-build fluid-applied waterproofing with reinforcing fabric as flashing at locations of potential high movement, such as wall and slab intersections that are not structurally connected.
- 3.4. Complete all preparatory work before application begins.

4. APPLICATION

- 4.1. Apply grade of fluid-applied waterproofing to meet job requirements as follows:
 - 4.2. **MASTERSEAL HLM 5000 R** for roller or spray application. Mark off areas of 10 m² on horizontal applications. Apply one 22.5 kg pail per 10 m². Spread immediately to ensure workability. Repeat procedure until entire surface is covered.
 - 4.3. Verify applied thickness of 1.36mm with wet mil gauge as work progresses. Allow to cure 48 hours at 21°C and 50% relative humidity. Extend curing time at lower temperatures and relative humidity.
 - 4.4. Dam entire deck area on horizontal surfaces to verify integrity of cured membrane by flooding with water to minimum depth of 50mm. Allow water to stand for 24 to 48 hours. Make visual inspection of bottom deck surface to check for any water penetration. Drain area and allow to dry if repairs are necessary. Reapply **MASTERSEAL HLM 5000 R** to correct deficiencies. Test area again for membrane integrity.
 - 4.5. Protect **MASTERSEAL HLM 5000 R** from traffic before placement of protection board and topping. Install tightly butted protection board minimum 3mm thick as soon as possible.

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5. APPLICATION (HIGH-BUILD)

Apply grade of fluid-applied waterproofing to meet job requirements as follows:

- 5.1. **MASTERSEAL HLM 5000 R** for roller or spray application.
- 5.2. Mark off areas of 10 m² on horizontal applications. Apply one 20.5 kg pail per 10 m², Spread immediately to ensure workability. Verify applied thickness of 1.36mm with wet mil gage
- 5.3. as work progresses.

- 5.4. Allow first coat to cure overnight. Apply second 1.36mm application of **MASTERSEAL HLM 5000R** Spread immediately to ensure workability. Verify applied thickness of 1.36 mm with wet film gauge as work progresses.

- 5.5. Set reinforcing fabric into wet material. Overlap all seams minimum of 50mm. Repeat procedure until entire surface is covered.

- 5.6. Allow to cure 48 hours at 70°F and 50% relative humidity. Extend curing time at lower temperatures and relative humidity.

- 5.7. Dam entire deck area on horizontal surfaces to verify integrity of cured membrane by flooding with water to minimum depth of 50 mm). Allow water to stand for 24 to 48 hours. Make visual inspection of bottom deck surface to check for any water penetration. Drain area and allow drying if repairs are necessary. Reapply **MASTERSEAL HLM 5000 R** to correct deficiencies. Test area again for membrane integrity.

- 5.8. Protect **MASTERSEAL HLM 5000 R** from traffic before placement of protection board and topping. Install tightly butted protection board minimum 3mm thick as soon as possible.

6. FIELD QUALITY CONTROL

- 6.1. Manufacturer's Field Service (Final Inspection, Warranty Request) by Manufacturer's Representative:

- 6.1.1. Inspect finished surface preparation, application, and finished waterproofing and require further preparation or application to achieve appropriate result.
- 6.1.2. In no case will manufacturer's representative approve surface or finish if the following conditions are found: pinholes, insufficient waterproofing thickness, or any other conditions which, in manufacturer's representative's opinion, may cause failure of installation.

7. CLEANING

- 7.1. Remove wet **MASTERSEAL HLM 5000 R**, primer, and sealant products from tools and equipment with Solvent No. 2. Remove dried materials mechanically.
- 7.2. Clean up and properly dispose of all debris remaining on job site related to application.

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