

THIS METHOD STATEMENT COVERS PREPARATION AND APPLICATION OF **MasterProtect 1814**.

METHOD STATEMENT: MasterProtect 1814

1. PRODUCT DESCRIPTION:

MasterProtect 1814 is a protective semi flexible high build Epoxy Polysulfide resin coating specifically developed for applications in areas where contact with wholesome water storage tanks or foodstuffs is envisaged.

2. APPLICATION PROCEDURE:

2.1. SUBSTRATE PREPARATION:

- 2.1.1. All surfaces shall be free from oil, grease, friable matter and general curing compounds (wax-based curing membranes shall not be used in areas to be over coated).
- 2.1.2. All surfaces, concrete or metal shall be cleaned using high pressure water jetting, grit blasting or other methods approved by the engineer to provide adequate mechanical key for excellent bonding.
- 2.1.3. It is most important to ensure that thorough surface preparation is undertaken prior to application of the **MasterProtect 1814**.

2.2. CONCRETE:

- 2.2.1. Ensure concrete is free from excessive laitance, grease, oil, curing compound, etc.
- 2.2.2. Ensure concrete is sound, cutting back where necessary and making good using suitable **MasterEmaco** or **MasterBrace** repair systems.
- 2.2.3. Ensure all blow holes and surface imperfections are made good prior to application of the **MasterProtect 1814**.
- 2.2.4. **MasterProtect 1814** shall be applied on a well-prepared surface without the use of primer, however on highly porous surface **MasterEmaco P 102** shall be applied as a primer prior to the application of **MasterProtect 1814**.
- 2.2.5. Ensure concrete is at least 28 days old. Contamination by oil, grease, fats etc. must be removed before other forms of preparation begin.
- 2.2.6. Remove laitance to expose blow holes, by light grit blasting.

2.3. STEEL:

- 2.3.1. All previous surface treatments should be removed taking the surface back to base metal.
- 2.3.2. The base metal should be abraded and preferably shot blasted with grit, steel shot or proprietary abrasive.
- 2.3.3. Where shot blasting is impractical pre-treatment may be carried out with pneumatic de-scaling guns, tap hammers, rotary wire brushes or by flame scaling.
- 2.3.4. Cleaning with solvent or a strong detergent is advisable to ensure surface is free from grease etc.

2.3.5. Do not allow surface to re-oxidize before application of **MasterProtect 1814**.

3. MIXING TOOLS:

3.1. The use of right mixing tools helps to get the required properties of the product. Improper or partial mixing is strictly prohibited while mixing **MasterProtect 1814**.

Clean and neat mixing bucket of the required volume, slow speed drill, good, conditioned drill paddles, a steel spatula etc will be required at site.

3.2. MIXING:

3.2.1. MasterProtect 1814 is supplied in two pre-weighed components, base and reactor.

3.2.2. No additions or omissions are required.

3.2.3. The total content of reactor to be added to the base component.

3.2.4. Mix thoroughly using a slow speed drill fitted with a suitable mixing paddle until a uniform streak free colour is achieved.

3.2.5. Mixing shall not be less than 2 minutes.

3.2.6. Base component may require separate gentle mixing if the material settles down due to high viscosity.

4. APPLICATION:

4.1. **MasterProtect 1814** can be applied using good quality shot hair rollers, brush or by airless spray.

4.2. It is recommended that **MasterProtect 1814** to be applied in two coats of contrasting colours to ensure complete coverage.

4.3. The second and subsequent coat shall be applied to the right angles of the previous coat.

4.4. The product to be applied at the rate of **0.25L/m²/coat** (two coats recommended) to achieve dry film thickness (DFT) 500 microns.

4.5. If the application is delayed more than 16 hours at 40°C or 36 hours at 20°C (the higher the ambient temperature, the shorter the maximum period) for the subsequent coat, then the previous coat must be thoroughly abraded to give an adequate mechanical key and to be solvent wiped.

4.6. For wholesome water application wait for 14 days after application prior to use.

4.7. AIRLESS SPRAY:

4.8. For large areas, Airless Spray application can be used. For application by airless Spray use, 45:1 or higher ratio pump, minimum 9mm dia. hoses and HD tip 19-23 thou.

5. APPLICATION TEMPERATURE:

5.1. The quality of the final coating is dependent on the substrate and the material temperatures. We recommend a substrate temperature ranging +14°C to +45°C. The optimal material temperature shall be +20°C to +25°C.

For Wholesome water application material needs to be applied in temperature-controlled environment (use cooler in case of high temperature and hot air blower for low temperature), maintain min 14°C for 14 days and 30°C for 7 days to ensure full curing property of the coating.

6. OVERCOATING:

- 6.1. Where areas need to be overcoated due to damage etc. it is important that the areas to be treated are well abraded using a stiff rotary wire brush or coarse sandpaper to give an adequate key. Completely strip off any unsound coating and proceed with overcoating as for new work.

7. FULL PACK COVERAGE:

- 7.1. **MasterProtect 1814** once applied at the rate of 0.25L/m²/coat (2 coats recommended), the full pack of 15 L will cover 30 m² theoretically at 500 microns thickness. Higher thickness shall be achieved in multiples coats. The recoating interval should be strictly followed when applied in multiple layers. The given coverage is subject to surface finish, smoother surface will achieve the mentioned coverage accordingly.

8. CLEANING OF TOOLS:

- 8.1. Extra care is required to keep all the tools clean and free of any hardened material. The tools to be cleaned immediately with a suitable thinner (Xylene / MEK / Acetone) or similar after finishing the application of **MasterProtect 1814**.

9. WATCH POINTS:

- 9.1. Substrate temperature, ambient temperature and the mixed product temperature to be monitored and method statement guidelines to be followed accordingly.
- 9.2. **MasterProtect 1814** shall not be applied if the humidity is likely to rise above RH 85% or if the dew point is likely to be reached before or during the application.
- 9.3. Moisture content of the concrete should be less than 4%.
- 9.4. Excessive mixing of the product should be avoided.
- 9.5. After mixing the material not to be kept in full container / big qty for longer duration to avoid exothermic reaction.
- 9.6. Partial mixing and improper mixing to be avoided.
- 9.7. The product to be applied within the given pot life.
- 9.8. The coating should be protected from water, dust or any other uses during the curing.

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