

THIS METHOD STATEMENT COVERS THE PREPARATION AND APPLICATION OF **MasterTop 1210CP**.

METHOD STATEMENT: MasterTop 1210CP

MEDIUM AND HEAVY DUTY

1. SUBSTRATE PREPARATION:

- 1.1. Prior to starting preparation, close the area to be prepared to all traffic and other trades.
- 1.2. The preferred methods of substrate preparation are; captive blasting using medium shot, high pressure water jetting, scarifying (using Bartel, Erut, Von Arx or similar equipment) or surface grinding.
- 1.3. If any part of the floor is contaminated by oil, grease or fuel, the contamination shall be removed before other forms of preparation are undertaken.
- 1.4. At free edges such as aisleways and doorways the floor coating / topping shall be terminated properly. Cut a groove in the substrate along the line of termination. The groove to be at least as deep as the thickness of the topping with the inner edge cut at a 20° angle.
- 1.5. Prepare the concrete substrate using the chosen method, removing all laitance and weak or friable concrete. The finished surface should have a profile of medium to coarse sandpaper.
- 1.6. Surface defects exposed during preparation such as shrinkage cracks, blow holes, minor honeycombing, minor damage to joint arrisses, etc. shall be filled with **MasterTop 2200** a thixotropic two component surface filler or by using the **Master Builders Solutions Method Statement for Thin Section Epoxy Repairs**.
- 1.7. Larger repairs can be carried out using products from the **MasterEmaco** repair range.
- 1.8. NOTE: When it is known prior to starting work on the floor that repairs are required, the repairs should be executed before general preparation is undertaken.
- 1.9. Remove joint sealant if installed.
- 1.10. Place polyethylene joint backer rod in joints, with the top of the backer rod flush with the floor surface. Push nails between the backer rod and the side of the joint leaving the nails protruding to act as markers. **MasterTop 1210CP** will be applied over the joint and the joint being cut-out later with a double-bladed joint cutter to the required width.
- 1.11. When floor preparation is complete, vacuum the area to remove all dust and debris.
- 1.12. Protect areas such as the bottom of walls and columns that may be splashed when the wet epoxy is being applied.
- 1.13. Place 50 mm wide masking tape along free edges.

2. SURFACE SEALING & PRIMING:

- 2.1. The concrete substrate for **MasterTop 1210CP Heavy Duty** must be sealed / primed.
NB: Refer to the table in Section 6.
- 2.2. **However**, it may be necessary to seal / prime the concrete substrate for **MasterTop 1210CP (Medium Duty)** depending on the porosity of the concrete substrate.
- 2.3. Mix all the components of either the **MasterTop P 650** – (Two Component) or the **MasterTop P 651** (Three Component) for approx. 2 - 3 minutes using a slow speed drill (300-400 rpm) fitted with a spiral mixing paddle until a uniform streak free mix is achieved.
- 2.4. Depending on the substrate roughness, use a short or medium pile roller to apply the mixed material to the prepared substrate ensuring total coverage. Application rates will vary depending on the substrate profile roughness and absorption / porosity of the concrete substrate, but it should be approx. as per **Section 6** below. Any dry spots should be resealed/re-primed.
- 2.5. **NB: Coverage rates depend on the substrate porosity / profile and does not include for any wastage.**
- 2.6. Allow the sealer coat to cure to a tack free state before starting application of the topcoat.

3. APPLICATION PROCEDURES:

- 3.1. Before starting application of the coating, ensure that all materials and tools are on hand to allow completion of the work, the floor is dry and dust free.
- 3.2. Ensure that the mixing equipment is adequate, with a backup mixer available in case of a break down and also ensure security of power supply.
- 3.3. A slow speed (300-400 rpm) electric drill is most commonly used for mixing this type of product.
- 3.4. **MasterTop 1210CP** can be applied using notched trowels, rollers or squeegees.
- 3.5. Spiked shoes are required when applying **MasterTop 1210CP**.
- 3.6. Do not start the application if the substrate and air temperatures are less than 12°C. Ideally the temperatures should be in the range of 18-35°C.
- 3.7. Do not apply when the relative humidity is greater than 90%, or if the dew point is reached.
- 3.8. Avoid application in direct sunlight to prevent pin-holing.
- 3.9. During hot weather it is preferable to apply **MasterTop 1210CP** in the late afternoon or early evening, when the temperature is falling, if the temperature of the building is not controlled.
- 3.10. Do not expose to chemical spillage or place in direct contact with water for the first 36 hours after application.

4. **MIXING: MasterTop 1210CP (Medium and Heavy Duty)**

- 4.1. Thoroughly mix the **MasterTop Color Pack** with the base component (PTA) until a uniform colour is achieved. Then add the reactor component (PTB) mixing the components together using a slow speed (300-400 rpm) drill fitted with a suitable mixing paddle. Mix for one minute, before adding the **MasterTop 1210CP** filler (PTC) whilst continuing to mix until a uniform colour is obtained, free of streaks or lumps of unmixed filler (PTC) (minimum 2 minutes).

NB: To avoid problems with lumps of unmixed filler it is advisable to filter the mixed material through 1 mm or 1.2 mm mesh (fly screen mesh) whilst decanting into another pail.

5. **APPLICATION: MasterTop 1210CP (Medium and Heavy Duty)**

- 5.1. Apply the 1st coat of **MasterTop 1210CP** at the given coverage rates as per the table in **Section 6**. Whilst the 1st coat of **MasterTop 1210CP** is still wet, broadcast the aggregate **MasterTop SR 2 or MasterTop SR 3** into the wet resin as per the below table in **Section 6**. Spiked shoes will be required for the application. Allow to cure for 12-24 hours depending on temperature.

NB: Application rates may vary depending on the substrate profile roughness and absorption / porosity. Any dry spots should be re-coated immediately before the aggregate scatter.

- 5.2. Remove excess aggregate by vacuum or sweeping with a stiff brush. Recovered aggregate may be re-used if clean and dry;
- 5.3. Apply the 2nd coat of **MasterTop 1210CP** at the given coverage rates as per table in **Section 6**. Allow to cure for 12-24 hours depending on temperature.
- 5.4. Deny the area to traffic and allow curing for 48 hours.

6. Application Rates for MasterTop 1210CP – (Medium and Heavy Duty)

MasterTop 1210CP Medium and Heavy Duty System Components	Mixed pack weights (kgs)	Application rate kg/m ² (L/ m ²)	Application rate kg/m ² (L/m ²)
		Medium duty	Heavy duty
Primer / Sealer Coat			
Option 1- MasterTop P 650 – Two component low viscosity primer for dense less porous substrates	15 kg	N/A (May be required depending on the substrate porosity)	0.15 - 0.30 kg/m ²
Option 2 - MasterTop P 651 – Three Component High Build Primer	25.4 kg	N/A (May be required depending on the substrate porosity)	0.3 kg - 0.35 kg/m ²
1st Coat Application			
MasterTop 1210CP with MasterTop Color Pack	32 kg	0.25 kg/m ² (0.16 L/m ²)	0.55 kg/m ² (0.35 L/m ²)
MasterTop SR 2 or MasterTop SR 3 for broadcast	25kg	0.6 kg/m ²	2.0 kg/m ²
2nd Coat Application			
MasterTop 1210CP with MasterTop Color Pack	32kg	0.50 kg/m ² (0.32 L/m ²)	0.55 kg/m ² (0.35 L/m ²)

7. TOP COAT: Optional

7.1. Thoroughly mix the

- (1) **MasterSeal TC 257** (Two component) or
 - (2) **MasterSeal TC 258** (Single component)
- using a slow speed (350 – 400 rpm), drill with a suitable spiral mixing paddle.

Apply one coat of **MasterSeal TC 257** or **MasterSeal TC 258** by medium pile roller or squeegee as per the following coverage rates and back roll in one direction only.

Product	No of coats	Coverage
Option 1 - MasterSeal TC 257 (Two Component)	1	0.25 kg/m ²
Option 2 - MasterSeal TC 258 (Single Component)	1	0.25 kg/m ²

7.2. Allow to cure 24 hours before applying line marking.

7.3. **NB: All the above coverages for each application stage sequence DO NOT include for any wastage factor and material consumption may vary / increase due to the porosity and profile of the concrete substrate.**

7.4. **Excessive application of the MasterTop SR 2 or MasterTop SR 3 aggregates may increase the consumption of material for the subsequent intermediate and topcoats.**

NB: Application rates may vary depending on the substrate profile roughness and absorption / porosity of the concrete. Any dry spots should be re-coated immediately before the aggregate scatter.

8. LINEMARKING OPTIONS:

If being applied to a polyurethane based car park deck system such as **MasterSeal Traffic 1330 / MasterSeal Traffic 1331 / MasterSeal Traffic 1332** or any of the **MasterTop Epoxy** based systems, the use of a primer is NOT needed, and the line markings are simply applied as below.

This is typically within 48 hours of the installation of the main floor coating system and if so, there is no surface preparation required other than ensuring a clean, dry and dust-free surface.

8.1. MasterTop TC 449 - LINE MARKING COATING (SMOOTH)

Line Marking (100mm Wide)

8.1.1. Mask off the required designs ensuring the masking tape is well adhered to the surface to prevent bleeding of the resin under the edge of the tape. Use a hard roller if available.

8.1.2. Lightly abrade the area for the line marking and vacuum off all the dust and debris.

- 8.1.3. Lightly solvent clean the prepared area using a solvent such as MEK / Xylene / Acetone and allow to dry.
- 8.1.4. Apply the 1st coat of the **MasterTop TC 449** line marking coating at the coverage rate of 0.025 litre/lm. (100mm Wide) (Approx. 100 microns WFT).
- 8.1.5. Allow approx. 2 hours between coats. (Touch Dry)
- 8.1.6. Apply the 2nd coat of the **MasterTop TC 449** line marking coating at the coverage rate of 0.025 litre/lm (100mm Wide) (Approx 100 microns WFT) and allow to dry.
- 8.1.7. Allow a minimum of 24 hours before opening to vehicular traffic.
- 8.1.8. Note: Any masking tape used during the application process should be removed before the resin hardens. This requires re masking of the decals / lines in between coats.

OR

8.2. MasterTop TC 443LM (See separate product method statement for full details).

- 8.2.1. Mask off the required designs ensuring the masking tape is well adhered to the surface to prevent bleeding of the resin under the edge of the tape. Use a hard roller if available.
- 8.2.2. Lightly abrade the area for the line marking and vacuum off all the dust and debris.
- 8.2.3. The areas should then be solvent wiped with a clean lint-free cloth and Acetone / MEK / Xylene to ensure the surfaces are perfectly clean (grease / oil free etc.).
- 8.2.4. Mask off the required lines, arrows etc. and apply as per the details on the method statement for the product.

MasterTop TC 443LM – Airless Spray Application

- 8.2.5. If it is required to carry out the application of larger areas the **MasterTop TC 443LM** can be spray applied using a suitable airless sprayer fitted with 15-20 thou nozzle of a suitable fan width (depending upon design of the floor signage).
- 8.2.6. It may be necessary to dilute the **MasterTop TC 443LM** with a small amount of Potable water (up to 5% by volume max) depending upon the spray equipment being used.

Site trials would be required to determine the best nozzle sizes and line pressures.

9. FORMING DAY JOINTS:

- 9.1. At the predetermined termination point, lay two strips of 50 mm wide masking tape, one on top of the other along the line of the intended joint. Place a strip of 3 mm thick x 5-10 mm wide self-adhesive foam tape near the back edge of the strip.
- 9.2. Stop laying the **MasterTop 1210CP** at the foam strip. Allow to cure overnight.
- 9.3. The following morning lift the edge of the masking tape and fold back.
- 9.4. The **MasterTop 1210CP** will break along the line of the masking tape. If the break is not clean enough it can be cut with a sharp knife or an angle grinder.

- 9.5. Prior to recommencing laying operations, tape a 1 metre wide sheet of polythene on top of the previous days application, along the cut edge, to protect it from splashes with wet resin.

10. EXPANSION / CONSTRUCTION MOVEMENT JOINTS:

- 10.1. Where joints have been prepared as in **Item 1.10** above, strike a chalk line between the nails protruding from the joint, remove the nails before cutting along the joint line with a double-bladed joint cutter to re-form the joint to the required width. Cut the epoxy back to the joint face, remove the sharp arris and reseal the joint with Master Builders Solutions Joint Sealant as required and as per Master Builders Solutions recommendations and Method Statements.

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