

THIS METHOD STATEMENT COVERS PREPARATION AND APPLICATION OF **MasterTop 1354SC**, A DECORATIVE AGGREGATES-BASED, UV STABLE, POLYURETHANE RESIN FLOORING SYSTEM

**METHOD STATEMENT: MasterTop 1354SC**

**1. SUBSTRATE PREPARATION:**

- 1.1. The preferred methods of substrate preparation are; captive blasting, scarifying (using Bartel, Erut, Von Arx or similar machines) or grit blasting. Acid etching is not recommended.
- 1.2. Light contaminations of oil, grease, fats or similar should be removed before starting other forms of preparation using degreasing solutions. If deep contamination is present it should be treated by hot compressed air.
- 1.3. If the substrate has been damaged by physical or chemical attack, it should be cut back until sound dense uncontaminated concrete is exposed. 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** or **MasterTop BC 1215 / MasterTop BC 1235** epoxy-based systems. Largescale surface repairs can be carried out using products from the **MasterEmaco / MasterTop repair** range.
- 1.4. When repairs are executed with cementitious products, they should be cured properly before applying the **MasterTop 1354SC** system. Moisture contents of the substrate repairs should NOT exceed 3% when tested with an electronic moisture meter unless the primer to be used is moisture tolerant (**MasterSeal P 385**).
- 1.5. If the flatness of the finished floor is important, high spots shall be ground off and low spots filled out (see 1.3 above).
- 1.6. When repairs and levelling are complete, the final surface preparation shall be carried out to remove all laitance and weak or friable concrete with the required surface profile (CSP 3-4).
- 1.7. Remove all dust and debris from the prepared surface.
- 1.8. Isolate the prepared areas to all vehicular and pedestrian traffic and no overhead work or other trades should be allowed to work in the area where the **MasterTop 1354SC** is being laid. External applications should be provided with full shade to minimize surface temperature build-up, etc.
- 1.9. Fix edging / divider strips, to achieve a level surface as per item 3.
- 1.10. Select flat steel strip of a suitable thickness for use as screed battens, if they are to be used.

**2. PRIOR TO INSTALLATION:**

**2.1. Storage**

Materials should be stored under cover, out of direct sunlight and must be protected from temperature extremes. Ideal storage temperatures are 15°C - 25°C.

### 3. DETAILING:

#### **Expansion / Isolation / Construction Joints, Free Edges and Adjacent Finishes:**

- 3.1. Metal Dividing strips should be permanently fixed to the surface of the concrete substrate or screed at all "Free Edges" and any expansion / isolation / construction / saw-cut control joints in the floor substrate, at column bases and perimeter walls etc. and wherever movement is expected, including adjacent finishes, metal finishes and at door thresholds.
- 3.2. Cold daywork joints without edging/divider strips are not permitted / recommended and the floor layout should be planned accordingly to include divider /edging strips. (Max recommended panel size approx. 50 - 65 m<sup>2</sup>).
- 3.3. Termination grooves must be cut in the surface of the concrete around drains, gulleys and any penetrations in the concrete substrate or screed where metal divider strips are not used. Termination grooves are nominally square in section with each side approximately twice the thickness of the floor. (Min 12mm x 12mm).

### 4. OPTIONAL: FIXING METAL DIVIDER STRIPS (5mm Depth Min.)

- 4.1. Brass, aluminium or zinc alloy divider strips can be used, ensuring that they have a means of mechanical fixing ("L Section").
- 4.2. Metal Divider Strips are to be permanently and firmly fixed to the substrate to the correct levels (Using a dumpy level) and to adhere to the design layout drawings as provided by the client and/or consultant.
- 4.3. Shrinkage and movement joints can be created using the permanent formwork if required, prior to filling with a proprietary joint sealant. The decorative divider strips (Brass, Zinc or Aluminium should be fixed and levelled to the required design prior to the application works commencing.

### 5. PRIMING:

- 5.1. The prepared floor surface shall be primed with one of the following options depending upon requirements:

**MasterTop P 650 (Epoxy based)**

**MasterSeal P 243 (Polyurethane based)**

**MasterSeal P 385 (Cement / Epoxy for external applications)**

**MasterSeal P 385** is specifically used for external applications where there is a risk of high residual levels of moisture within the concrete due to ground water conditions.

- 5.2. The multiple components (Parts A+B / Parts A+B+C for **MasterSeal P 385**) of the required primer shall be carefully and thoroughly mixed to ensure a streak free and uniform consistency is attained. Please refer to the specific Technical Data Sheet and Method Statements for the required primer.
- 5.3. The mixed primer should be applied by brush, roller or squeegee at an applied rate of between **0.2-0.3kg/m<sup>2</sup> (MasterTop P 650 / MasterSeal P 243)** and **0.5-1.0kg/m<sup>2</sup> for MasterSeal P 385** and is also dependent upon the concrete porosity and surface profile, etc. Do not allow the primer to pond. Ensure that the primer covers all the substrate to be overlaid. If the substrate quickly absorbs the primer and has visibly matte patches,

the surface must be re-primed to leave a wet surface for the application of the **MasterTop 1354SC** system.

Ensure the primer is brushed out of anchor / termination grooves, etc. to prevent premature filling with the applied resin.

- 5.4. Once the primer has been applied, **MasterTop 1354SC** system **MUST** be applied whilst the relevant primer is still **tacky to the touch** (see relevant primers technical data sheet) and adequate planning needs to be in place to ensure this is possible.
- 5.5. Should it not be possible to both prime the floor surfaces and then immediately overlay with the **MasterTop 1354SC** system it will be necessary to lightly sand the applied and cured primer, solvent wipe and then re-apply and continue immediately with the **MasterTop 1354SC** application.

## 6. MIXING: MasterTop BC 354

- 6.1. Mixing of the multiple components of the **MasterTop 1354SC** is to be carried out by mechanical means with a heavy-duty handheld mixer (Collomix Xo6) fitted with a Collomix KR mixing head) at a low speed (ca. 300 rpm).
- 6.2. Add the **MasterTop BC 354** Part B into the container of the **MasterTop BC 354** Part A and mix slowly for 1-2 minutes whilst at the same time slowly adding 0.5kg of **MasterTop SR 1** filler to ensure a homogeneous mix is created. Scrape the sides and the bottom of the container several times to ensure complete mixing.  
  
Keep the mixer head submerged in the material to avoid introducing air bubbles, DO NOT WORK OUT OF THE ORIGINAL CONTAINER.
- 6.3. After proper mixing to a homogeneous consistency pour the mixed **MasterTop BC 354** into a large clean container and mix for another minute whilst slowly adding the required **MasterTop F 585** or **MasterTop F 11** aggregates in a steady stream. **Ensure thorough wetting out of all the aggregates.**

## 7. APPLICATION:

- 7.1. To achieve a uniform thickness guiding lathes of suitable thickness are to be used. Steel strips are most suitable, as the weight of the steel helps to keep them in place.
- 7.2. Apply the binder/aggregates mixture onto the primed surface at the approximate rates:

Aggregates size	Ratio binder/aggregates	<b>MasterTop BC 354</b>
1.5 - 2.2 mm	1:10	10%
2.0 - 3.2 mm	1:12	8%
3.0 - 5.6 mm	1:15 to 1:17	6%

Aggregates size	Minimum thickness	Mix (kg/m <sup>2</sup> )
1.5 - 2.2 mm	>5mm	~10kg
2.0 - 3.2 mm	>8mm	~16kg
3.0 - 5.6 mm	>12mm	~24kg

- 7.3. Spread material evenly between the battens or divider strips with a rake, float, or trowel.
- 7.4. Systematically and methodically level off and tamp with a straight edge filling in where necessary.
- 7.5. Use a steel trowel to form a smooth and uniform surface finish.
- 7.6. Seal off the area and protect from wind, rain chemical spillages and traffic until firm enough to walk on then apply the sealer coat (if recommended).

## 8. SEALER COAT - IF REQUIRED

- 8.1. The sealer coat consists of the Part A & Part B only (No **MasterTop SR 1** filler to be added) of the **MasterTop BC 354** and these should be mixed as per 6.1. – 6.2. above.
- 8.2. Application should take place within 12- 24 hours (max) of the original floor installation and by short nap paint roller – application rates will vary based upon the type of surface finish that is required and needs to be assessed on site based upon the type and size of aggregates used within the **MasterTop 1354SC**.

## 9. POST INSTALLATION:

- 9.1. No Building Trades or traffic to be allowed on to the freshly laid **MasterTop 1354SC** for at least 24 hours at 25°C, longer at lower temperatures.
- 9.2. It is normal for the installation of joints to take place after 12-18 hours and no other trades should have access until the applied sealant has cured sufficiently to resist damage.
- 9.3. If the floor is to be handed to the client in a pristine condition, then it must be protected from other trades. Full protection of the whole floor by temporary covers consisting of polyethylene sheeting overlaid with hardboard, or plywood depending on the trades and traffic to have access, with joints taped and fixed. Ensure the floor is completely tack free at the time of covering, typically after 24 hours at 25°C.
- 9.4. It is recommended that the finished **MasterTop 1354SC** floor should not be compromised by any temporary fixings, anchors or plugs, etc. drilled through the finished floor as any subsequent repairs may be visible. Any repairs required should be carried out as per item 10.

## 10. REPAIRS - IF REQUIRED

- 10.1. Any repairs should be avoided or kept to a minimum to avoid any compromise to the aesthetics of the finished **MasterTop 1354SC** Stone carpet. The repairs may be visible when complete.
- 10.2. Carefully break out any damaged area of the **MasterTop 1354SC** as required by the site conditions.
- 10.3. The perimeter of the repair area should be carefully fragmented to give an uneven profile.
- 10.4. **NB:** Large areas may require edging / divider strips for aesthetics as required.
- 10.5. Thoroughly clean the area for repair by vacuuming to remove all dust and debris.
- 10.6. Lightly solvent wipe the repair area to condition the existing primer and allow to dry.  
**NB:** Larger areas may require being primed.

- 10.7. Mix the **MasterTop 1354SC** as per item 6 above and carefully fill the repair area with the appropriate tools ensuring tight contact with the existing **MasterTop 1354SC** without contaminating the surface of the adjacent **MasterTop 1354SC** and finish to the required adjacent aesthetics.
- 10.8. **NB:** Masking tape should not be used around the repair area during the repair application to minimise any adhesive / joint lines being visible.
- 10.9. **NB:** Repair method may vary depending on the type of damage to the **MasterTop 1354SC** and would be assessed as required.

**NOTE:**

The above Method Statement provides a detailed summary guide of the installation of a **MasterTop 1354SC** floor and should be read in conjunction with our technical data sheets.

The Applicator is a specialist in the installation of **MasterTop 1354SC** floors and they must install the floor in accordance with **Master Builders Solutions Construction Chemicals LLC** current guidelines and best site practice.

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**STATEMENT OF RESPONSIBILITY**

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

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**NOTE**

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