

MasterSeal® Traffic 2259

Polyurethane Based, Car Park Coating System With The Property of Covering Cracks

THIS METHOD STATEMENT COVERS THE PREPARATION AND APPLICATION OF **MasterSeal Traffic 2205**

METHOD STATEMENT: MasterSeal Traffic 2205 A crack bridging car park deck coating system with separate, spray applied water-proofing layer and wear coat.

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. NOTE: Acid etching should not be used.
- 1.4. If any part of the floor is contaminated by oil, grease or fat, the contamination should be removed before other forms of preparation are undertaken.
- 1.5. At free edges such as aisleways and doorways the floor topping should 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.
- 1.6. Prepare the concrete substrate using the chosen method, removing all laitance and weak or friable concrete. The finished surface should have the texture of medium to coarse sandpaper.
- 1.7. Surface defects exposed during surface preparation such as shrinkage cracks, blow holes, minor honey combing, minor damage to joint arrises, etc. shall be filled with **MasterTop 2200** a thixotropic two component surface filler.
- 1.8. Cracks that may be live should have a band of **MasterSeal M 811**, 50mm wide, applied along the length of the crack and filling the crack. Thickness of the coating should be **0.8 mm - 1.0 mm**.
- 1.9. Larger repairs can be carried out using products from the **MasterEmaco** repair range.
- 1.10. 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.
- 1.11. Remove joint sealant if existing.

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- 1.12. Place joint backer rod in joints, with the top of the backer rod with the floor surface. Push nails between the backer rod and the side of the joint, leaving the nails protruding, to act as markers. **MasterSeal Traffic 2205** will be laid over the joint, the joint being cut out later.
- 1.13. When floor preparation is complete, vacuum the area to remove all dust and debris.
- 1.14. Protect areas such as the bottom of walls and columns that may be splashed.
- 1.15. Place 50mm wide masking tape along free edges.

2. PRIMING: MasterTop P 650

2.1. APPLICATION:

- 2.2. Apply 1 coat of **MasterTop P 650** at the rate of 0.25-0.3 kg/m² by brush, broom, trowel or squeegee to the previously prepared surface.
- 2.3. Broadcast **MasterTop SR 3** into the wet and glossy primer at the rate of 0.8-1.0 kg/m² to achieve the desired surface profile.
- 2.4. Allow the coat to dry for not less than 12 hours.

3. CURING / DRYING:

- 3.1. **MasterTop P 650** will take longer to dry sufficiently for over-coating in low temperatures and high humidity.
- 3.2. Provisions of good ventilation will significantly reduce drying time.
- 3.3. Allow to cure for minimum 6 hrs.

4. PRIMING SECOND COAT: MasterSeal P 691: (A single component polyurethane adhesion primer)

- 4.1. Shake the container prior to decanting and apply by roller, brush or spray.
- 4.2. For best results, materials, substrate and air temperature should be in the range 15-25°C.
- 4.3. **MasterSeal P 691** is moisture curing and will foam if applied thickly. It is important to apply thinly.
- 4.4. **MasterSeal P 691** normally applied at 0.05-0.10kg/m².

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- 4.5. Following application, **MasterSeal P 691** should be protected from direct contact with water, including dew or condensation, which will impair adhesion to the subsequent coat.
- 4.6. Ensure that the solvent contained in the material is allowed to flash off completely before applying the subsequent coat.
- 4.7. The curing reactions are influenced by ambient, material and substrate temperatures. Low temperatures lengthen the open and curing times. High temperatures shorten open and curing time.

5. **MasterSeal M 811: Spray Equipment**

- 5.1. **MasterSeal M 811** can only be applied by means of a suitable two component hot spray high pressure spray machine (e.g. Graco Reactor 2 E-XP2)
- 5.2. The mixing ratio by volume is 1:1 (resin: isocyanate)
- 5.3. The used spray machine should be capable of offering the required pressure (130-180 bars), temperature (70-75°C) and consistency of temperature at the required flow rate. This should be checked on daily basis by doing correct setup check which involves the spraying of a sample.
- 5.4. The pressure gauges need to be monitored during the application; the observed pressures should be equal and stable. A pressure drop normally indicates a blockage at the feeding end.
- 5.5. Both components must be heated up to between 70°C-75°C.
- 5.6. Processing pressure for both components should be 130-180 bar.
- 5.7. The spray machine hose system must be thermally insulated to minimize heat loss, cover with an abrasion resistant covering to protect the hoses and its electrical components; the minimum recommended hose length is 15 meters.
- 5.8. A proper spray gun should be used (e.g. Probler P2 Gun , Air Purge Gun), the function of the spray gun is to mix the 'A' and 'B' components and discharge the mixture in a uniform spray pattern. The trick with spray guns is to mix and spray out the 'A' and 'B' components without the mixed material reacting in or on the gun.
- 5.9. Recommended mix chamber to be round pattern gun (e.g. AR 2929, AR 4242)
- 5.10. Equipment and hoses must be flushed with appropriate non-solvent, inert chemical, when not in use for prolonged periods such as **MasterTop THN 2**.

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6. MasterSeal M 811: Membrane Application

- 6.1. **MasterSeal M 811** is a solvent free, two component polyurethane/polurea hybrid waterproofing membrane. It is high reactive and needs to be applied by special, two component spray equipment.
- 6.2. **MasterSeal M 811** is 2 component
Part A: Resin approx. Grey.
Part B: Isocyanate / Unpigmented.
- 6.3. Part A the resin component needs to be thoroughly stirred or agitated prior to use.
- 6.4. Part A should be mixed using a drum mixer, mix at low speed 300-400rpm for 20 minutes. DO NOT mix at higher speed in order to avoid air entrapment.
- 6.5. **MasterSeal M 811** should be applied at 2.4 kg/m².
- 6.6. Layer thickness can be estimated and documented based upon total consumption and total surface area. Based upon the average density of 1kg/l.
- 6.7. Details will require higher coverage rate up to 4.0 kg/m² or more.
- 6.8. Full cure is normally achieved within 2 days at 23°C.
- 6.9. Re-Coating intervals.

Next layer	Hours min.			Hours max.		
	Temperature [°C]			Temperature [°C]		
	10	20	30	10	20	30
MasterSeal M 811	immediately			8	4	2

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Two component hot
spray high
pressure spray
machine



Air purge Gun



Probler P2
Gun



Part A



Part B



Drum Mixer

7. INTERMEDIATE COAT: MasterSeal M 881 (Two component)

- 7.1. Thoroughly mix the **MasterSeal M 881** A and B using a slow speed (350 - 400 rpm) drill with suitable spiral mixing paddle for two minutes until a uniform colour is achieved. Transfer the mixed material into a clean mixing bucket and mix for a further 1 minute. Pour the mixed material into suitable paint trays and then apply one coat of **MasterSeal M 881** by medium pile roller or squeegee as per the following coverage rates:

Product	No of coats	Coverage
MasterSeal M 881 (Two Component)	1	0.5-0.7 kg/m²

- 7.2. Broadcast **MasterTop SR 3** into the wet **MasterSeal M 881** at the rate of **1.2-1.8 kg/m²** to achieve the desired surface profile.
- 7.3. Allow to cure for at least 5 hours @ 20°C, then remove any excess aggregate before overcoating.

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8. TOP COAT: MasterSeal TC 258

- 8.1. Thoroughly mix the **MasterSeal TC 258** using a slow speed (300 - 400 rpm) drill with a suitable spiral mixing paddle. Apply one coat of **MasterSeal TC 258** by medium pile roller or squeegee as per the following coverage rates:

Product	No of coats	Coverage
MasterSeal TC 258 (Single Component)	1	0.5-0.8 kg/m²

- 8.2. Allow to cure 24 hours before applying line marking.

9. Line Marking (100mm Wide)

9.1. MasterTop TC 444 – Line Marking Coating (Smooth)

- 9.2. Lightly abrade the area for the line marking and vacuum off all the dust and debris.
- 9.3. Lightly solvent clean the prepared area using **MasterTop THN 2** and allow to dry.
- 9.4. Apply the 1st coat of the **MasterTop TC 444** line marking coating at the coverage rate of **0.025 liter/lm.** (100mm Wide) (Approx 100 microns)
- 9.5. Allow approx. 2 hours between coats. (Touch Dry)
- 9.6. Apply the 2nd coat of the **MasterTop TC 444** line marking coating at the coverage rate of **0.025 litre/lm** (100mm Wide) (Approx 100microns) and allow to dry.
- 9.7. Allow a minimum of 24 hours before opening to vehicular traffic.
- 9.8. Note: Any masking tape used during the application process should be removed before the resin hardens.

10. Optional - MasterTop TC 444 – Line Marking Coating + Reflective Glass Beads

- 10.1. Refer to the **BASF** Technical Service Department for a Project Specific Method Statement.

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