

THIS METHOD STATEMENT COVERS THE MIXING AND INSTALLATION OF **MasterFlow 915 RTA EPOXY MORTAR AS A BEDDING FOR MOULDED RUBBER SEGMENTAL BRIDGE EXPANSION JOINTS.**

## **METHOD STATEMENT: MasterFlow 915 RTA**

### **1. GENERAL:**

- 1.1. Ensure Asphalt has been cut back to the required width at the bridge joint location to accommodate the width of the joint plus the two transition strips. Required dimensions to be checked with joint suppliers.
- 1.2. Horizontal surface of exposed concrete bridge nosing / corbel to be mechanically scabbled / chipped (chisel point) to provide a roughened and sound concrete surface on to which the **MasterFlow 915 RTA** bedding mortar can bond (minimum thickness of **MasterFlow 915 RTA** to be 30mm with a maximum of 300mm, beyond 100mm thickness please contact Master Builders Solutions Technical Department for advice). Surface profile to be CSP 8 -10 (ICRI surface profile guide number).
- 1.3. Upon completion of mechanical scabbling vacuum / blow out all dust and then wire brush the surface again to ensure there are no fractured pieces of concrete remaining. Bush hammering is NOT a recommended means of surface preparation as it can leave behind micro-fractures within the concrete surface. Blow / vacuum the surface again to remove all dust.
- 1.4. Install and seal all necessary shuttering along the full length of the expansion gap (both sides) to the required level of the bedding mortar. **This should be checked with the supplier of the expansion joint and set accordingly.** Ensure the inner face of the shuttering is lightly greased to prevent the shutters being bonded to the epoxy once placed.
- 1.5. Create a wooden template based upon the joint width and required depth of the epoxy mortar bed (**MasterFlow 915 RTA**) that allows the surface of the bedding mortar to be struck off following the correct profile and camber of the joint as measured from the final surface of the Asphalt.
- 1.6. **ALL surfaces that are to come into contact with MasterFlow 915 RTA should be dry and dust free.**

### **2. MIXING:**

- 2.1. Empty the entire contents of the **MasterFlow 915 RTA** PTA resin into a clean 20 L mixing bucket, scrape out to ensure ALL the resin is utilised.
- 2.2. Open the PTB bottle and pour the contents into the mixing bucket and mix slowly using a heavy-duty mixer and mixing head (Collomix KR or similar) for 30 seconds.
- 2.3. Open the **MasterFlow 915 RTA** PTC (Aggregate) and slowly pour the aggregate into the mixing bucket whilst the mixer is running (slowly).
- 2.4. Mix thoroughly until all aggregate is fully incorporated into the resin, this should take no more than 2-3 minutes. Do NOT overmix.

- 2.5. Once mixed, dump the thixotropic mortar onto the prepared concrete surface and level out using hand towels and the levelling template. Always work from the lowest point and work upwards along the camber of the road.
- 2.6. Work on both sides of the joint at the same time to ensure there is no risk of interplanar level difference across the joint.
- 2.7. Once struck off using the timber templates lightly float the surface using a steel trowel to close up any tears in the surface.
- 2.8. Re-check the levels again and adjust as required by adding or removing material whilst it is still soft (up to 15minutes after placing).
- 2.9. Finally float the surface with a steel trowel wetted with solvent (MEK / Xylene / Acetone) to create a very smooth and dense finish.
- 2.10. Upon completion of any section cover with shutter-ply or similar to keep the sun off the surface and allow to cure for at least 4 hours (emergency repairs) before considering the next stages in the joint installation process.
- 2.11. NO actual curing regime is required other than protect from direct sun and accidental traffic.
- 2.12. Under normal circumstances the bedding mortar should be allowed to “cure” for at least 18 hours before continuing with the joint installation.

Once the **MasterFlow 915 RTA** bedding mortar has hardened sufficiently it can, if necessary, be lightly ground down to correct any minor high spots that may be evident.

It is recommended that the **MasterFlow 915 RTA** bedding mortar be cast in sections (lengths) NOT exceeding 3m, use temporary stop ends to split the long lengths up and reduce the risk of cracking. Normal practise would be to cast in alternate sections and then remove the stop ends after 2-3 hours and repeat the process for the remaining sections.

Note:

Hairline cracks across the bedding mortar that may occur should not be considered as defects as they have no detrimental effect on the compressive strength or long-term durability of the bedding mortar and can if required be simply chased open and filled with **MasterBrace ADH 2200** or **MasterFlow 936 AN** anchoring epoxy (used for the anchor bolt installation).

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**STATEMENT OF RESPONSIBILITY**

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