Renderoc® LA55

**Free flowing, low alkali, micro-concrete reinstatement mortar**

**1.00** Where designated on the drawings, repairs to concrete will be made using a free flowing, shrinkage compensated micro-concrete mortar compatible with concrete 30-60MPa. *(insert when required) The repair mortar must be suitable for use with incipient anode protection systems.*

**1.10 Preparation**

Saw cut or cut back the extremities of the repair locations to a depth of at least 25mm to avoid feather edging and to provide a square edge. Break out the complete repair area to a minimum depth of 50mm up to the sawn edge. Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae.

**1.11** **Steel Reinforcement**

 Expose fully any corroded steel in the repair area and remove all loose scale and corrosion deposits. Steel should be cleaned to a bright condition paying particular attention to the back of exposed steel bars. Grit-blasting is recommended for this process.

 Where a reinforcement coating is required as an active corrosion protection barrier, apply one full coat of a suitable zinc-rich primer and allow to dry before continuing.

**1.12 Substrate Priming**

 The prepared substrate must be thoroughly soaked with clean water and any excess removed prior to the application of the repair mortar.

**1.20 Repair Mortar**

 The repair mortar shall be a single-component low alkali cement-based blend of powders to which only the site addition of clean water shall be permitted.

The repair mortar is to be non-hazardous in accordance with Australian Inventory of Industrial Chemicals containing <0.1% RCS (Respirable Crystalline Silica).

 When used in contact with drinking water, the repair mortar will be tested to and comply with AS4020:2018 at an exposure level of 15,000mm2 / litre.

 The repair mortar shall exhibit the following typical properties:

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| **Compressive strength (AS1478.2-2005):** | 60 MPa @ 28 days |
| **Flexural strength (AS1012.11-2000):** | >10 MPa @ 28 days |
| **Indirect tensile strength (AS1012.10-2000):** | 5.5 MPa @ 28 days |
| **Drying Shrinkage (25 x 25 x 285 prisms @ 27oC, 55% RH) AS 1478.2 – 2005:** | < 300 microstrain @ 7 days< 550 microstrain @ 28 days |
| **Alkali reactive particles RTA Rapid Mortar Bar Test RTA T363:** | <0.1% (Non-Reactive) |
| **Flow (AS1478.2 – 2005 flow trough):** | 600mm |

1.21 The repair mortar shall be applied using “form and pour” process or pumped in accordance with the manufacturer’s product data sheet.

**1.30** **Fosroc Renderoc LA55** with **Nitoprime Zincrich** meet the performance criteria and are approved.

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