Renderoc® G

**Acid resistant repair mortar for corrosive environments**

**1.00 Preparation**

Clean the surface and remove any dust, unsound material, plaster, oil, paint, grease, corrosion deposits or algae. Roughen the surface to remove any laitance and expose the fine aggregate by light scabbling or grit-blasting. Where possible, saw cut or cut back the extremities of the repair locations to a depth of 10mm to avoid feather edging and to provide a square edge.

1.10 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.

**1.10 Substrate Priming**

 The concrete surface should be saturated for 2-3 hours prior to application and then any excess water removed from the surface to provide a surface saturated dry (SSD) surface immediately prior to the

 application of the repair mortar.

**1.20 Acid Resistant Mortar**

 The acid resistant mortar shall be a single-component geo-polymer modified cement-based blend of powders to which only the site addition of clean water shall be permitted. The material shall exhibit a

 7 day compressive strength of 20 MPa and retain a compressive strength of 26MPa after 56 days wet cure followed by a further 28 days immersion in 20% solution of Sulphuric Acid.

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

 The repair mortar shall exhibit the following typical properties:

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| **Compressive strength (AS1478.2-2005):** | 35 MPa @ 28 days |
| **Flexural strength (AS1012.11-2000):** | >5 MPa @ 28 days |
| **Indirect tensile strength (AS1012.10-2000):** | 4 MPa @ 28 days |

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1.21 The mortar shall be applied by wet spray process or hand trowel applied in accordance with the manufacturer’s product data sheet.

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

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