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| **From** | ARDEX Australia (AAu-NSW) |
| **Issue date** | Monday, 25th July 2017 |
| **Subject** | ARDEX BR 340 - MICROTEC® Fibre-Reinforced, Polymer-Modified, Structural Concrete Patching and Repair Mortar. |

**SCOPE**

The [ARDEX BR 340](PS001%20-%20ARDEX%20BR%20345.http:/www.ardexaustralia.com/products/repair-mortars/ardex-br-340docx) MICROTEC® Fibre-Reinforced, Polymer Modified, Structural Concrete Patching and Repair Mortar is designed for reinstating concrete surfaces damaged through concrete spalling and other chemical or mechanical causes

**SUBSTRATES**

Concrete

**PREPARATION**

The substrate must be clean, sound and free from all grease, oil, dust and other surface contaminants such as curing membranes. Damaged or contaminated concrete must be removed to obtain a good bond to the substrate. Cut the edges of the repair vertically to a minimum depth of 10mm. All surface laitance must be removed. Exposed reinforcing steel should be cleaned to remove all residual rust and concrete residue. In accordance to best practice, as outlined in the ACRA Guide to Concrete Repair and Protection Concrete HB84-2006 Chapter 6, concrete should be removed from around and behind all corroding rebar to avoid future contamination of the repaired area. Exposed reinforcing must be cleaned and protected with [ARDEX BR 10 ZP](http://www.ardexaustralia.com/products/repair-mortars/ardex-br-10-zp?highlight=YTo5OntpOjA7czo1OiJhcmRleCI7aToxO3M6MjoiYnIiO2k6MjtpOjEwO2k6MztzOjI6InpwIjtpOjQ7czo4OiJhcmRleCBiciI7aTo1O3M6MTE6ImFyZGV4IGJyIDEwIjtpOjY7czo1OiJiciAxMCI7aTo3O3M6ODoiYnIgMTAgenAiO2k6ODtzOjU6IjEwIHpwIjt9) Zinc-rich Primer in a continuous film. If [ARDEX BRX 60 LO](http://www.ardexaustralia.com/products/repair-mortars/ardex-brx-60-lo?highlight=YTo2OntpOjA7czo1OiJhcmRleCI7aToxO3M6MzoiYnJ4IjtpOjI7aTo2MDtpOjM7czo5OiJhcmRleCBicngiO2k6NDtzOjEyOiJhcmRleCBicnggNjAiO2k6NTtzOjY6ImJyeCA2MCI7fQ==) Low Output Anodes are used, please refer to respective Technical Datasheet for surface preparation, rebar priming and installation methods.

**PRIMING**

The prepared substrate should be pre-soaked for 24 hours but at least 2 hours before applying ARDEX BR 340. The surface should be mat damp but without standing water. The substrate should then be primed by employing one of the following methods:

1. [ARDEX WR Prime](http://www.ardexaustralia.com/products/renders-screeds/ardex-wr-prime?highlight=YTo2OntpOjA7czo1OiJhcmRleCI7aToxO3M6Mjoid3IiO2k6MjtzOjU6InByaW1lIjtpOjM7czo4OiJhcmRleCB3ciI7aTo0O3M6MTQ6ImFyZGV4IHdyIHByaW1lIjtpOjU7czo4OiJ3ciBwcmltZSI7fQ==) should be applied and worked into the substrate. Once the ARDEX WR Prime has reach initial cure, ARDEX BR 340 can be applied.
2. A slurry bond coat of ARDEX WR Prime and ARDEX BR 340 should be made to a stiff, brushable consistency and applied to the dampened surface.

Apply the ARDEX BR 340 as soon as the bonding bridge is tacky enough to hold the weight of the mortar. ARDEX BR 340 should be applied wet-on-wet. Do not let the bonding layer dry out completely. If the surface is too wet or too dry application of ARDEX BR 340 may be difficult.

**PRIMING FOR REINFORCED STEEL**

Use ARDEX BR 10 ZP Zinc-rich Primer as primer for steel reinforcement in concrete. Apply ARDEX BR 10 ZP in a continuous film; apply a second coat if needed. ARDEX BR 10 ZP should be cured prior to applying the repair mortar. If ARDEX BRX 60 LO Low Output Anodes are used, please refer to respective Technical Datasheet for surface preparation, rebar priming and installation methods.

**APPLICATION**

ARDEX BR 340 is to be applied onto the prepared primed substrate. Make sure that the patching mortar is applied whilst the priming layer is still wet (wet-on-wet). Apply using a trowel or by hand (wearing chemically resistant gloves). Make sure that the material is sufficiently forced and compacted into cracks and holes to ensure that all voids are filled.

If repair mortar slumps, remove all ARDEX BR 340 and re-apply after re-priming the substrate, then apply the repair mortar at a reduced thickness.

**FINISHING**

Once the mortar has set, and the surface is hard enough, work can begin on the surface finish. The surface finish can be dense and smooth by using a wooden or plastic float, or coarse and sandy by using a sponge to give the required effect.

**CURING**

An approved ARDEX curing compound such as [ARDEX BA 70 CC](http://www.ardexaustralia.com/products/repair-mortars/ardex-ba-70-cc?highlight=YTo5OntpOjA7czo1OiJhcmRleCI7aToxO3M6MjoiYmEiO2k6MjtpOjcwO2k6MztzOjI6ImNjIjtpOjQ7czo4OiJhcmRleCBiYSI7aTo1O3M6MTE6ImFyZGV4IGJhIDcwIjtpOjY7czo1OiJiYSA3MCI7aTo3O3M6ODoiYmEgNzAgY2MiO2k6ODtzOjU6IjcwIGNjIjt9) should be used immediately after finishing. Curing compounds should be sprayed onto the surface of the finished ARDEX BR 340 according to the Technical Datasheet of the curing compound.

**OVERCOATING**

To achieve a fine finish, use [ARDEX BR 120 FC](http://www.ardexaustralia.com/products/repair-mortars/ardex-br-120-fc?highlight=YTo5OntpOjA7czo1OiJhcmRleCI7aToxO3M6MjoiYnIiO2k6MjtpOjEyMDtpOjM7czoyOiJmYyI7aTo0O3M6ODoiYXJkZXggYnIiO2k6NTtzOjEyOiJhcmRleCBiciAxMjAiO2k6NjtzOjY6ImJyIDEyMCI7aTo3O3M6OToiYnIgMTIwIGZjIjtpOjg7czo2OiIxMjAgZmMiO30=) as a Fairing Coat; alternatively, the repaired patch can be rendered over with a suitable ARDEX Render or Coating. Refer to relevant Technical Datasheets for application of overcoats.

**TECHNICAL DATA**

The ARDEX BR 120 FC can be applied at a minimum thickness of 1mm and a maximum thickness of 3mm.

Once cured, the ARDEX BR 120 FC will achieve a compressive strength of 24MPa at 28 days and a flexural strength of 7MPa at 28 days.

The ARDEX BA 70 CC has a water retention efficiency of ≥90% and conforms to AS3799-1998.

The ARDEX BR 340 can be applied at a minimum thickness of 10mm and a maximum thickness of 80mm. The ARDEX BR 340 has a low resistivity <15,000Ω cm.Once cured, the ARDEX BR 340 will achieve a compressive strength of 37MPa at 28 days; drying shrinkage of ~600 microstrain at 28 days (23°C, 50% RH) and a flexural strength of 8.4MPa at 28 days.

Disclaimer: The recommendation selected is based upon questions answered on the ARDEX Australia website. This recommendation is designed as a general application for your described situation and should not be considered site specific documentation for general distribution. Always consult the latest relevant ARDEX Technical Bulletins and information on the product packaging and/or product data sheets (available on the ARDEX Website). It is the responsibility of the user to ensure that this document is current and most up to date. Australian and other relevant standards should be followed during installation. If you have any further questions or would like further clarification please contact the ARDEX Technical Services Hotline on 1800 224 070 (9am to 5pm Monday to Friday).