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| **From** | ARDEX Australia (AAu-NSW) |
| **Issue date**  | Monday, 31st July 2017 |
| **Subject** | ARDEX BR 460 Flow - High Performance, Flowable, Structural Micro Concrete |

**SCOPE**

The [ARDEX BR 460 FLOW](http://www.ardexaustralia.com/products/repair-mortars/ardex-br-460-flow?highlight=YTo5OntpOjA7czo1OiJhcmRleCI7aToxO3M6MjoiYnIiO2k6MjtpOjQ2MDtpOjM7czo0OiJmbG93IjtpOjQ7czo4OiJhcmRleCBiciI7aTo1O3M6MTI6ImFyZGV4IGJyIDQ2MCI7aTo2O3M6NjoiYnIgNDYwIjtpOjc7czoxMToiYnIgNDYwIGZsb3ciO2k6ODtzOjg6IjQ2MCBmbG93Ijt9) High Performance, Flowable Structural Micro Concrete is a pourable repair mortar designed for reinstating horizontal concrete surfaces damaged through concrete spalling and other chemical or mechanical causes. ARDEX BR 460 FLOW exhibits superior flow characteristics and is capable of being applied in thicknesses of 20mm to 200mm in one pour. It is designed to be used in conjunction with ARDEX BRX 60 LO Low Output Anodes for ultimate corrosion control and cathodic prevention.

**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 20mm. 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 [BR 10 ZP](http://www.ardexaustralia.com/products/repair-mortars/ardex-br-10-zp?highlight=YTo2OntpOjA7czoyOiJiciI7aToxO2k6MTA7aToyO3M6MjoienAiO2k6MztzOjU6ImJyIDEwIjtpOjQ7czo4OiJiciAxMCB6cCI7aTo1O3M6NToiMTAgenAiO30=) Zinc-rich Primer in a continuous film. If [ARDEX BRX 60 LO](http://www.ardexaustralia.com/products/repair-mortars/ardex-brx-60-lo?highlight=YTo5OntpOjA7czo1OiJhcmRleCI7aToxO3M6MzoiYnJ4IjtpOjI7aTo2MDtpOjM7czoyOiJsbyI7aTo0O3M6OToiYXJkZXggYnJ4IjtpOjU7czoxMjoiYXJkZXggYnJ4IDYwIjtpOjY7czo2OiJicnggNjAiO2k6NztzOjk6ImJyeCA2MCBsbyI7aTo4O3M6NToiNjAgbG8iO30=) Low Output Anodes are used, please refer to respective Technical Datasheet for Surface Preparation and rebar priming methods.

**PRIMING**

The prepared substrate should be pre-soaked for 24 hours but at least 2 hours before applying ARDEX BR 460 FLOW to reduce the porosity of the substrate. Remove excess freestanding water on the surface prior to the application of BR 460 FLOW. The surface should be mat damp but without standing water.

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

**Formwork preparation:** The area to be poured must be enclosed with good quality rigid watertight formwork. The formwork must be able to rigidly confine the ARDEX BR 460 FLOW until it has set. Formwork should be flushed out just prior to application without any standing water present. It is recommended to use an appropriate form release agent.

**APPLICATION**

ARDEX BR 460 FLOW is to be applied onto the pre-wetted substrate. Make sure that the micro concrete is applied whilst the substrate is still wet. It should be applied in a continuous pour to avoid cold joints. It is recommended to smooth the material after each pour with a steel trowel. Optimal temperature (ambient and substrate) is 10°C - 30°C. Do not apply if the temperature will fall below 5°C during the initial cure. At temperatures above 30°C, cold water should be used as the mixing water. It is not recommended to apply ARDEX BR 460 FLOW in temperatures above 35°C.

**CURING**

As with all cementitious products ARDEX BR 460 FLOW must be cured properly to ensure maximum performance. An approved ARDEX curing compound such as [ARDEX BA 70 CC](http://www.ardexaustralia.com/products/repair-mortars/ardex-ba-70-cc?highlight=YTo5OntpOjA7czo1OiJhcmRleCI7aToxO3M6MjoiYmEiO2k6MjtpOjcwO2k6MztzOjI6ImNjIjtpOjQ7czo4OiJhcmRleCBiYSI7aTo1O3M6MTE6ImFyZGV4IGJhIDcwIjtpOjY7czo1OiJiYSA3MCI7aTo3O3M6ODoiYmEgNzAgY2MiO2k6ODtzOjU6IjcwIGNjIjt9) must be used on all exposed areas. If formwork is used, the curing compound should be applied immediately after the formwork is removed. Curing compounds should be applied onto the surface of the ARDEX BR 460 FLOW according to the Technical Datasheet of the curing compound. If the surface of ARDEX BR 460 FLOW was not restrained during the cure, any laitance should be removed (generally can be rinsed off) before applying the curing compound

**TECHNICAL DATA**

The ARDEX BR 460 FLOW can be applied at a minimum thickness of 20mm and a maximum thickness of 200mm.

Once cured, the ARDEX BR 460 FLOW will achieve a compressive strength of >45MPa at 28 days; drying shrinkage of ~700 microstrain at 28 days (23°C, 50% RH) 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.

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).