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| **From** | ARDEX Australia (AAu-NSW) |
| **Issue date**  | Monday, 31st July 2017 |
| **Subject** | ARDEX BG 90 GP - General Purpose, High-Strength, Shrinkage Compensated, Class-A-Type Construction Grout. |

**SCOPE**

The [ARDEX BG 90 GP](http://www.ardexaustralia.com/products/repair-mortars/ardex-bg-90-gp?highlight=YTo5OntpOjA7czo1OiJhcmRleCI7aToxO3M6MjoiYmciO2k6MjtpOjkwO2k6MztzOjI6ImdwIjtpOjQ7czo4OiJhcmRleCBiZyI7aTo1O3M6MTE6ImFyZGV4IGJnIDkwIjtpOjY7czo1OiJiZyA5MCI7aTo3O3M6ODoiYmcgOTAgZ3AiO2k6ODtzOjU6IjkwIGdwIjt9) is a general purpose, high-strength, Class-A-Type construction grout that can be mixed to a non-slump or pourable mix and is suitable for a wide range of projects and applications. The cement-based formulation contains additives that provide positive expansion when the grout is in its plastic state and is also shrinkage compensated when in the hardened state. It is suitable for applications requiring a grout thickness between 12mm and 100mm. ARDEX BG 90 GP is ideal for applications where high compressive and flexural strength is required. Depending on the water ratio, a compressive strength of up to 70MPa is achieved after 7 days and 90MPa after 28 days.

**SUBSTRATES**

Concrete

**PREPARATION**

The surface to be grouted must be clean, sound and free of dust, dirt, oil, grease, curing compounds, release agents and other barrier materials. Damaged or contaminated concrete must be removed to obtain a good bond to the substrate

**Pre-soaking:** The surface must be pre-soaked for several hours prior to grouting to reduce the porosity of the substrate. Remove excess freestanding water on the surface prior to grouting.

**Formwork Preparation:** The area to be grouted must be enclosed with good quality rigid watertight formwork. The formwork should be constructed with enough room to use a grout header box system. The formwork must be able to rigidly confine the ARDEX BG 90 GP until it has enough strength to be removed depending on the application. It is recommended to use an appropriate form release agent. Formwork should be flushed out just prior to application.

**MIXING**

Stiff 11% - 13% water (2.2 - 2.6L)

Plastic 13% - 15% water (2.6 - 3.0L)

Flowable 15% - 18% water (3.0 - 3.6L)

The mixing ratio can be varied to achieve the right consistency for the job which can vary from a stiff hand packable consistency to a flowable consistency. Always ensure that the BG 90 GP powder is added to the water during mixing. Use an electric type mixer as hand mixing is not suitable. Allow for approximately 3 minutes of mixing to achieve optimum mix results. The mix should be used immediately after mixing. After this time, discard any mix that shows signs of stiffening. Do not remix. It is strongly recommended that a small trial batch is tested to determine the best mix consistency for the project at hand.

**CURING**

Stiff and Plastic For stiff and plastic consistencies, cure the product thoroughly after it has set by keeping it wet and covered with plastic sheets for at least 7 days. Upon removing the plastic sheets, it is recommended to apply an approved ARDEX curing compound such as [ARDEX BA 70 CC](http://www.ardexaustralia.com/products/repair-mortars/ardex-ba-70-cc?highlight=YTo5OntpOjA7czo1OiJhcmRleCI7aToxO3M6MjoiYmEiO2k6MjtpOjcwO2k6MztzOjI6ImNjIjtpOjQ7czo4OiJhcmRleCBiYSI7aTo1O3M6MTE6ImFyZGV4IGJhIDcwIjtpOjY7czo1OiJiYSA3MCI7aTo3O3M6ODoiYmEgNzAgY2MiO2k6ODtzOjU6IjcwIGNjIjt9). Flowable For flowable mixes, it is very important to prevent moisture loss during the early plastic state prior to setting. This can be achieved by keeping the unrestrained areas to a minimum. Apply an approved ARDEX curing compound such as ARDEX BA 70 CC after final set on all exposed areas. If formwork is used, also apply ARDEX BA 70 CC immediately after striking the form. Curing compounds should be applied onto the surface according to their respective Technical Datasheet. Improperly cured material may result in surface shrinkage cracks.

**PRECAUTIONS**

ARDEX BG 90 GP is not to be used as a tile grout. Do not add additional water to the specified amount. Apply grout in a continuous operation, even in large areas. ARDEX BG 90 GP is suitable for applications between 12mm and 100mm. Keep unrestrained areas to a minimum as this will reduce the final compressive strength of the mix and may result in cracking. Cure time and set will be extended when applied at lower temperatures and accelerated at higher temperatures. Substrate and ambient temperature must be a minimum of 10°C and should not exceed 35°C. Large and/or deep volumes of grout can generate excessive heat whilst hardening. This may lead to thermal cracking. More mixing water will increase flow but reduce strength. Entrapping air must be avoided during application. This product is not meant for structural repair and applications where vibration is anticipated

**TECHNICAL DATA**

The ARDEX BG 90 GP can be applied at a minimum thickness of 12mm and a maximum thickness of 100mm.

Once cured, the ARDEX BG 90 GP will achieve a Compressive Strength of ≥70 MPa stiff, ≥60 MPa plastic and ≥50 MPa flowable.

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).