



ARDEX BG 90 GP

General Purpose Class A Construction Grout

General purpose grouting applications

Versatile - dry pack, pourable, and pumpable

Applications between 12mm - 100mm thickness

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ARDEX BG 90 GP

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DESCRIPTION

ARDEX BG 90 GP is a general purpose, high-strength, Class A construction grout that is suitable for a wide range of applications. The cement-based formulation contains additives that provide positive expansion when the grout is in its plastic state, and is shrinkage compensated when in the hardened state. ARDEX BG 90 GP has been designed for applications between 12mm and 100mm thickness.

USES

- Void filling and dry packing
- Column bases (steel and precast concrete)
- Precast panel connections and between precast panels
- Base plates, machine bases (non-vibrating), and equipment support

SUBSTRATE PREPARATION

The substrate must be clean, sound and free from all grease, oil, dust and other contaminants such as coatings and scale. Surface laitance, damaged or contaminated concrete must be totally removed.

By mechanical methods (grit blasting, scabbling etc), the substrate or surface must be abraded or roughened to create maximum bond for the ARDEX BG 90 GP.

SUBSTRATE PRE-SOAKING

The prepared substrate must be pre-soaked for preferably 24 hours but at least 2 hours before applying ARDEX BG 90 GP. Remove excess freestanding water on the surface prior to the application of ARDEX BG 90 GP. The substrate should be mat damp but without standing water.

Sealable outlets must be incorporated into the formwork to allow the water from pre-soaking to be removed.

Pre-soaking can assist with the product flow properties, increase bond strength, and reduces moisture loss from the material during the initial setting stage.

FORMWORK PREPARATION

Using a trowel or dry pack applied method requires basic formwork as to provide the material a 'stop' within the repair area before beginning to work the material forward.

More complex formwork setups may be required for flowable type applications. The formwork must be good quality rigid watertight formwork. If form release agents are to be used, ensure the form release agent is not applied to the prepared concrete substrate to prevent substrate contamination. For smaller applications the 'header box' of the formwork is the point of entry the mixed ARDEX BG 90 GP will be poured, with the 'exit box' allowing for monitoring the progress of the pour. For larger applications, formwork variations may include moveable or several 'header boxes' in place with air relief points. Ensure the pour is well planned prior to commencing.

MIXING

Measure the appropriate amount of clean water into a clean suitable sized pail and then add the 20kg bag of ARDEX BG 90 GP to the water whilst mixing with a heavy duty mixer on low speed (400 - 500 rpm). Once all of the powder has been added, mix for 3 - 5 minutes until smooth and fully homogeneous.

Note: The powder must always be added to the clean water. Ensure the heavy duty mixer being used can shear the grout powder and water.

CONSISTENCY	Ltrs per 20kg bag	YIELD (mixed)
Stiff	2.4 - 2.8	9.5
Plastic	2.8 - 3.4	10.3
Flowable	3.4 - 4.0	10.9

APPLICATION

The mixed product must be placed within the products working time (20 minutes @ 23°C). It is highly suggested to place the mixed product immediately after mixing. Discard any material showing signs of stiffening, and do not remix. In certain applications it is recommended to perform a small trial to ensure the correct consistency is achieved prior to final application.

For trowel or dry pack baseplate applications, finish the edging at a 45° slope from the underside of the baseplate. This will allow water to shed and remove edges prone to possible damage. Avoid applying ARDEX BG 90 GP past the baseplate as expansion and contraction of the baseplate may cause cracking to ARDEX BG 90 GP.

For flowable applications, pouring from one-side with a continuous flow is essential during the pour. This will eliminate air pockets and residual pre-soak water to create the required substrate/surface adhesion.

For pumping applications, please contact ARDEX Technical Services (technicalservices@ardexaustralia.com) on equipment suitability.

Application temperature must be between 10°C - 35°C, paying close attention to substrate temperature and environment conditions. The time taken to prepare and mix product, working time, and pour time must be taken into consideration.

CURING

It is critical to protect the freshly installed grout from excessive moisture loss for the first 7 days (minimum), failure to do so may lead to shrinkage and loss of strength. To maintain moisture content curing compounds may be applied, alternatively wet hessian covered by plastic sheeting may be used.

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TECHNICAL DATA

CHARACTERISTICS	CONSISTENCY		
	STIFF	PLASTIC	FLOWABLE
Water (per 20kg bag)	2.2 - 2.8 L	2.8 - 3.4 L	3.4 - 4.0 L
Water Percentage (per 20kg bag)	12% - 14%	14% - 17%	17% - 20%
Mixed Mortar Density	2.35kg/L	2.26kg/L	2.20kg/L
Pot Life (@ 23°C)	20 minutes	20 minutes	20 minutes
Initial Set	30 minutes	2 - 4 hrs	4 - 6 hrs
Final Set	30 mins - 1 hr	3 - 5 hrs	5 - 7 hrs
Compressive Strength	≥45 MPa (1 day) ≥70 MPa (7 days) ≥75 MPa (28 days)	≥30 MPa (1 day) ≥50 MPa (7 days) ≥55 MPa (28 days)	≥18 MPa (1 day) ≥35 MPa (7 days) ≥40 MPa (28 days)
Flexural Strength	≥5.5 MPa (1 day) ≥9.5 MPa (7 days) ≥11 MPa (28 days)	≥5.5 MPa (1 day) ≥7 MPa (7 days) ≥9 MPa (28 days)	≥3.5 MPa (1 day) ≥6 MPa (7 days) ≥7 MPa (28 days)
Application Ambient Temperature	10°C (min) - 35°C (max)		
Application Substrate Temperature	10°C (min) - 35°C (max)		

PACKAGING

20kg bag

CLEAN UP

Clean all tools in water immediately after use. Cured product may need to be mechanically removed.

SHELF LIFE

ARDEX BG 90 GP has a shelf life of 12 months when stored in the original unopened packaging, in a dry place at 23°C and 50% relative humidity.

LIMITATIONS

Do not add additional water to the suggested amount. Flowable applications must be completed in a continuous operation to greatly reduce air entrapment. Keep unrestrained areas to a minimum as this may reduce the final compressive strength and may cause cracking. Both setting and curing times will be affected by colder and warmer ambient and substrate 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 product is not designed for structural repair applications, refer to ARDEX Concrete Repair Mortar range. Vibrators must never be used with this product.

Before any substrate preparation, installation or finishing methods relating to ARDEX products are undertaken, please be aware of any potential risks and use appropriate PPE (personal protective equipment). This may involve contacting substrate manufacturers for Safety Data Sheets.

SAFETY DATA

This product may cause irritation and an allergic reaction to the skin. It may cause serious eye injury and irritation to the respiratory system. In case of contact with the eyes rinse with running water until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Wear protective gloves, clothing, eye and face protection. Avoid inhaling dust/fumes/gas/mist/vapours/spray. Ensure adequate ventilation during mixing and application. Store locked up. Check with your local Council regarding the disposal of contents, dispose of packaging thoughtfully and recycle where possible. Keep out of the reach of children. Call the Poisons Information Centre on 131 126 (AUS) and 0800 764 766 (NZ) or call a doctor if you feel unwell. Additional information is in the Safety Data Sheet (SDS) at www.ardexaustralia.com.

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GUARANTEE

ARDEX Australia Pty Ltd (“we” or “us”) guarantees this product (“our goods”) is free from manufacturing defects and will perform to any applicable specification published by us for 10 years from the date of purchase. Our liability under this guarantee is limited at our option to replacement of the product, repair of any damage to the immediate surface or area of application of the product, or compensation, in each case if we are satisfied loss or damage was due to a breach of this guarantee. This guarantee does not apply if damage or loss is due to failure to follow published instructions or any act or circumstance beyond our control, including shade variations and efflorescence. If you wish to make a claim under this guarantee you must notify us (ARDEX Australia Pty Ltd, 20 Powers Road Seven Hills NSW 2147; Toll Free: 1800 224 070; Email: technicalservices@ardexaustralia.com) and provide evidence of your purchase of the product within 30 days of any alleged loss or damage occurring. We reserve the right to ask you for satisfactory evidence of any alleged loss or damage. Any claim under this guarantee is at your cost. This guarantee is in addition to any rights or remedies you may have as a “consumer” under the Australian Consumer Law and to that extent you need to be aware that: “Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss of damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure”.

DISCLAIMER

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance with any applicable Australian Standards. Our instructions and recommendations are only for the uses they are intended. Users are advised to confirm that this product is suitable for their application and conforms with the specifications of the system. We also reserve the right to update information without prior notice to you to reflect our ongoing research and development program. Country specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may affect specific installation recommendations. The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with them.

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