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# ARDEX BG 140 HP

**High Performance, High-Strength, Shrinkage-Compensated, Class-C-Type Construction Grout**

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Superior strength with excellent flow

Versatile - Flowable, trowelable and pumpable

Positive expansion when the grout is in its plastic and hardened state

Ideal for precision grouting applications

Non-hydrogen gas forming

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**ARDEX Australia Pty Ltd**

20 Powers Road  
Seven Hills NSW 2147  
1300 788 780  
technicalservices@ardexaustralia.com  
www.ardexaustralia.com

**ARDEX New Zealand Ltd**

15 Alfred Street, Onehunga  
Auckland, New Zealand  
Tel: 0800 227 339  
Email: info@ardexnz.com  
**www.ardex.co.nz**

# ARDEX BG 140 HP

## High Performance, High-Strength, Shrinkage-Compensated, Class-C-Type Construction Grout

### DESCRIPTION

ARDEX BG 140 HP is a high-performance, high-strength, Class-C-Type construction grout that can be mixed to a fluid, flowable or plastic 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 as well as in its hardened state. It is suitable for applications requiring a grout thickness between 12mm and 100mm. ARDEX BG 140 HP is ideal for applications where high compressive and flexural strength is required. Depending on the water ratio, a compressive strength of up to 75MPa is achieved after 7 days and 90MPa after 28 days.

### Typical Applications

ARDEX BG 140 HP may be used for:

- Grouting applications where high performance is critical
- Critical equipment base plates, machine bases, equipment support
- Column bases (steel and precast concrete)
- Precast panel connections and between precast panels
- Underpinning
- Conveyor supports and other similar grouting applications.

### 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 moisture loss to 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 140 HP 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

Fluid	18% - 19% water (3.6 - 3.8L)
Flowable	16% - 18% water (3.2 - 3.6L)
Plastic	13% - 16% water (2.6 - 3.2L)

The mixing ratio can be varied to achieve the right consistency for the job which can vary from a trowelable consistency to a pourable and fluid consistency. Always ensure that the BG 140 HP powder is added to the water during mixing. Measure and add 75% of the specified water to a suitable size bucket. Use an ARDEX approved mixer and slowly add all of the BG 140 HP powder and mix for 1 - 2 minutes or until uniform consistency is achieved. After this add the remaining 25% of the water and mix for another 1-2 minutes. The mix should be used immediately after mixing. 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

#### Plastic or Trowelable

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 curing compound.

#### Flowable and Fluid

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. It is recommended to apply an approved curing compound after final set on all exposed areas. Curing compounds should be applied onto the surface according to their respective Technical Datasheet. Alternatively plastic sheets or wet hessians can be used for a minimum of seven days. Improperly cured material may result in surface shrinkage cracks.

### PRECAUTIONS

ARDEX BG 140 HP is not to be used as a tile grout or in large, shallow areas where levellers or bulk fills are typically used. ARDEX BG 140 HP is not to be used as a structural grout or for structural repairs; for this application we recommend structural repair mortars. Do not add additional water to the specified amount. ARDEX BG 140 HP is suitable

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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.

### SHELF LIFE

ARDEX BG 140 HP 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.

### CLEAN UP

Clean all tools in water immediately after use.

### 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](http://www.ardexaustralia.com)

### TECHNICAL DATA

AS1478.2 Consistency	Fluid	Flowable		Trowelable	
Litres of water per 20kg bag (litres)	3.8	3.6	3.2	2.8	2.6
Water (%)	19	18	16	14	13
Coverage/20kg (litres)	10.8	10.5	10.1	9.9	9.8
Pot Life (minutes)	30	30	30	30	20 - 30
Wet Density (g/ml)	2.20	2.25	2.30	2.30	2.30
Final Set (hours)	~6	5 - 6	3 - 4	2 - 3	1 - 2
AS 1478.2 Flow Cone (seconds)	≤30	35	95		
AS 1478.2 Compressive Strength 24h (MPa)	19	22	31	38	40
AS 1478.2 Compressive Strength 7d (MPa)	50	55	65	70	75
AS 1478.2 Compressive Strength 28d (MPa)	65	70	75	83	90
AS 1478.2 Early Volume Change	Positive Expansion				
ASTM C1090 - 10 Hardened Volume Change	Positive Expansion				

**Note:** All values are approximate. Tested at 23°C in laboratory conditions.

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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](mailto: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

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This datasheet was issued in October 2019 and is valid for 3 years, in some instances a newer version may be published. Always refer to [www.ardexaustralia.com](http://www.ardexaustralia.com) for the latest technical data from ARDEX Australia Pty Ltd.