



## TECHNICAL DATA SHEET

- Coatings
- Curing
- Waterproofing
- Moisture Proofing
- Protection
- Repair Products
- Primers
- Repellent

# BossGrout A

## DESCRIPTION

**BossGrout A is a Class A construction grout based on a blend of Portland cement; high quality graded aggregates and additives which control expansion whilst the grout is in a plastic state.**

## AREAS OF APPLICATION

- General purpose grouting
- Grouting underneath precast panels and concrete sections
- Anchor bolt filling
- Filling in cavities, gaps and base infills
- Filling core holes created in panels by core drilling
- Suitable for block work core filling

## FEATURES & BENEFITS

- Shrinkage compensated
- Gaseous expansion while in plastic state eliminates shrinkage and settlement
- Non metallic iron content eliminates staining
- Can be troweled, rammed, troweled or poured
- Pumpable for larger applications
- Grouting from 20mm to 150mm in a single application
- Australian Made.

## APPLICATION INSTRUCTIONS

### SURFACE AND SUBSTRATE PREPARATION

The substrate to be grouted must be clean, sound and free from dust, oil, grease, curing compounds or any foreign matter that will affect the grout adhesion bond. Bolt holes and anchor points must be clean and free of water.

All prepared areas must be saturated with water for a minimum of 4 hours prior to grouting. This will reduce the porosity of the substrate. Prior to grouting, ensure all excess water is removed and all holes must be free from water and no puddles of water are present.

If grouting under base plates it is imperative that bleed holes or venting holes are provided (this will eliminate pressure build up in a confined area).

## FORMWORK

It is essential that the formwork be constructed to be leak proof and water tight. In order to achieve this it is recommended that foam rubber strips or a suitable sealant such a polyurethane or silicone be used underneath the formwork.

The formwork should be constructed which will allow and ensure a grout head is maintained on the side above the level of the underside at the base plate. The formwork should allow for gravity flow of grout with a suitable grout head allowing for continuous flow between the base plate and the concrete substrate.

To ensure ease of formwork removal, the formwork should be coated with form oil or release oil prior to grouting.

## TEMPERATURE

Low Temperature Application:

At low temperatures below 10° C, the grout setting time is extended and some bleeding may occur. The early strength gain will be dramatically reduced, however ultimate strength will be maintained. It is recommended that the BossGrout A and the water be conditioned to 20- 25° C overnight or several hours before application. This will assist in strength development.

High Temperature Application:

At high temperatures greater than 30° C the grout setting time is reduced and grouting application becomes problematic due to very early setting times and reduced placement times.

It is recommended that Penaflo Panel Grout be kept in a cool environment and the use of cold water be used for mixing. It is recommended that in instances where the temperature is greater than 30° C, the grouting be conducted early in the day or late in the evening and sheltered from sunlight and direct heat.

## MIXING

BossGrout A is ready to use, simply requiring the addition of water.

BossGrout A must be mixed with a mechanical mixer with a high shear mixer or a suitable drum mixer that creates a forced action mixing.

For smaller quantity mixing, an electric drill with a spiral mixing paddle is suitable. The speed drill should be approx 500-600 rpm.

**DO NOT MIX BY HAND.**



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### MIXING CONT.

MIXING RATIOS	
Desired Mix	Water per 20kg Bag (Litres)
Dry Pack/Stiff Grout	2.7-2.9L
Plastic / Trowellable Grout:	3.0-3.4L
Flowable / Pourable Grout:	3.6-4.0L

Always add the grout powder to the pre-measured water. DO NOT ADD ADDITIONAL WATER AS GROUT WILL SEGREGATE AND BLEED AFFECTING PERFORMANCE.

The selected water level should be accurately measured and added to a suitable mixing container.

Add the powder (grout) to the water and mix for 3- 5 minutes until a homogeneous consistent mix is obtained.

DO NOT ADD ADDITIONAL WATER OTHER THAN SPECIFIED ABOVE. DISCARD ANY GROUT THAT HAS STIFFENED OR IS UNWORKABLE.

### PLACEMENT

BossGrout A can be placed in three different ways.

1. Dry Pack/Stiff Grout (2.7-2.9 litres water per bag). Ensure sufficient water is present to obtain a stiff/dry pack consistency. If the grout is too dry insufficient hydration of the cements will cause low strength gain and inadequate curing. Using a tamping rod or a suitable tamping tool apply the grout in the required position tamping to ensure adequate compaction. DO NOT ADD ADDITIONAL WATER AS THIS WILL PLASTICISE THE MIX AND MAKE COMPACTION DIFFICULT.

2. Gravity flow using header box.

Mix the grout to a flowable consistency and pour grout from one side to avoid air entrapment. Ensure a grout head box is used and the grout head is maintained at all times. This will ensure continuous flow of grout without the possibility of air entrapment.

### 3. Large volume pumping.

Mix the grout using a forced action mixer. A positive displacement pump is the recommended pump for large placement application. For large grout pours ensure the grout is pumped from the bottom upwards as this will minimise any air entrapment and ensure complete void filling. For base plates pump from one side ensuring an air bleeder hole is available in the formwork or base plate to ensure any build up of pressure is released from the bleeder hole.

DO NOT VIBRATE OR USE MECHANICAL VIBRATOR TO ASSIST FLOW.

### CURING

On completion of grout application all exposed grout should be cured in accordance to 'good practices' in concrete curing. The exposed grout should be covered with plastic sheeting, wet hessian or wet liquid curing compounds such as the Bosscure range of curing compounds.

Consult you Allcon representative for advise on the most suitable product.

Curing plays a vital role in ultimate grout performance and strength development.

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### TYPICAL PROPERTIES

Appearance	Grey powder / Grey when mixed	
Fresh Wet Density	2190kg / m3 (Flowable/pourable)	
Application Temp	Maximum	30 °C
	Minimum	10 °C
Expansion Characteristics	Expansion 1-2% Plastic State	
Time for Expansion	Start 15 mins. Finish 3hrs (Plastic State)	
Bleed	0%	
Youngs Modulus	25GPA	



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### SETTING TIMES

Consistency	Dry Pack	Trowellable	Flowable
Initial Set (Hours)	1.5	3.0	4.5
Final Set (Hours)	2.5	4.5	6.5
Water per Bag	2.7-2.9 L	3.0-3.4 L	3.6-4.0 L
Tested at 20°C 50% RH Tested to AS 1012.18 for setting times.			

### COMPRESSIVE STRENGTH

Age (Days)	Compressive Strength (MPa)	Flextural Strength (MPa)
1	>20	>1.5
3	>30	>3.5
7	>40	>8.5
28	>55	>9.5

### BOND STRENGTH

Age (Days)	Compressive Strength (MPa)
7	>5 MPa
28	>10 MPa
Tested to ASTM C882-1987, Slant shear method.	

### YIELDS

Consistency	Dry Pack	Trowellable	Flowable
Water (L) / 20kg	2.7-2.9	3.0-3.4	3.6-4.0
Yield per Bag (L)	10.3	10.6	11.0
Fresh Wet Density (kg/m <sup>3</sup> )	2250	2220	2190
Bags required per cubic metre	97	94	91



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### PRECAUTIONS

- Unrestrained area must be kept to a minimum
- Do not add additional water other than what is specified.
- Never apply mixed grout to a dry porous substrate
- Refer to SDS(Safety Data Sheet) prior to mixing
- Always apply grout in a continuous operation to ensure grout head is maintained.
- At low temperature, grout setting time and strength gain will be extended.
- At very high temperatures, grout will set and cure faster potentially causing cracking and delamination.

### PACKAGING

BossGrout A is supplied in 20kg poly lined bags.

### STORAGE AND SHELF LIFE

BossGrout A has shelf life of 9 months if stored in the original sealed packaging in dry, low humid environments.

### CLEAN UP

Wash all tools and equipment with fresh clean water immediately after use. BossGrout A can only be removed mechanically.

### HEALTH & SAFETY

Avoid contact with skin. Protective gloves and clothing are recommended when mixing or using this product.

Please refer to the full MSDS (Material safety data sheet) for this product, which is available from Allcon on request.

### DISCLAIMER

Boss products are manufactured to the highest quality, and if used in the correct applications and in accordance with all directions, will produce quality and consistent results. However Allcon Group Pty Ltd accepts no responsibility for inappropriate usage or faulty workmanship by the end user.

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