



packaging

non-shrink grout



1. Product Name

ASH GROVE® Non-Shrink Grout
Product Number: 460

2. Manufacturer

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3. Product Description

ASH GROVE® Non-Shrink Grout is a high strength, non-shrink, and non-metallic mix designed for high performance grouting applications. ASH GROVE® Non-Shrink Grout creates a high strength, solid base for heavy equipment and machinery. Its non-shrink formulation maintains intimate contact with the underside of machinery base plates, ensuring a stable base capable of withstanding high loads. Excellent for filling large voids and gaps under structural steelwork, precast wall panels and rails.

BASIC USE:

Recommended for high strength grouting of:

- Anchor Bolts
- Structural Steel
- Concrete Columns
- Precast Wall Panels
- Heavy Equipment and Machinery

COMPOSITION & MATERIALS:

ASH GROVE® Non-Shrink Grout is a portland cement based construction grout with special expansive additives and other approved ingredients designed for high strength, high performance grouting applications. Just add water.

4. Advantages/Benefits

ASH GROVE® Non-Shrink Grout has several advantages including:

- Non-corrosive, will not attack reinforcement
- Non-shrink, no loss of volume
- Non-metallic, non-staining gray color
- Dry pack, plastic or fluid consistency
- Pumpable for easier placement

5. Preparation

All surfaces that will be in contact with ASH GROVE® Non-Shrink Grout must be entirely free from unsound concrete, oil, grease, paint, or any other foreign substances which may interfere with the bond of the material. Prior to grout application, all surfaces must be clean and saturated with water for 24 hours. Remove excess or standing water before placing the grout. Provide air relief holes where necessary if grouting is beneath structural systems.

Suggestions for working with forms:

- Coat wood forms or other absorbent forms with a form release oil to prevent grout from adhering to the form and excessive water absorption.
- Design forms to facilitate rapid, continuous and complete filling of the space to be grouted.
- Use methods that will enable the grout to naturally flow between surfaces and keep the grout in full contact with the surfaces until it has hardened.

6. Mixing Instructions

Pour ASH GROVE® Non-Shrink Grout into a clean mixing container. Add minimum amount of clean water to achieve desired grout consistency. Additions of hot water in cold weather and cold water in hot weather will help maintain a grout temperature of 60°F to 70°F for optimum results.

Desired Grout Consistency:

- **Plastic** (Trowel Consistency) – Approximately 1 gallon of water
- **Flowable** (Pumping Consistency) – Approximately 1¼ gallons of water
- **Fluid** (Pumpable Consistency) – Approximately 1½ gallons of water

Mix the material for at least 5 minutes using a mixer large enough to permit continuous placement of grout before any part of the grout has set. Mix only the amount of material that can be applied within 15 minutes.

7. Placement

Ideal placement temperatures are:

	Minimum	Maximum
Substrate	50°F	90°F
Mix	60°F	80°F
Air	50°F	90°F

Place the grout quickly. Use light rodding to move the material and eliminate air bubbles. Avoid vibration by shutting down nearby machines which can cause bleeding and segregation.

8. Curing

Remove forms as soon as the grout is firm and cannot be penetrated by a point masonry trowel. Exposed shoulders can be left in place or trimmed. Rinse tools immediately after applying grout.

For proper curing keep exposed surfaces wet for 24 hours to prevent evaporation. Protect the new surface from freezing for 48 hours. Protect from heat and direct sun for 24 hours.



non-shrink grout (cont.)

Air and substrate temperatures will affect the working time and method of curing needed. For optimum performance, apply when air and substrate temperatures are between 50°F and 90°F.

For installations where acids and sulfates are present, a protective coating is required.

Cure per *Portland Cement Association publication Design and Control of Concrete Mixes (EB001.12T)* and/or *American Concrete Institute 308 publication Standard Practice for Curing Concrete.*

9. Technical Information

ASTM SPECIFICATIONS:

- Meets requirements of ASTM C-1107 specifications when used as directed.
- Meets requirements of U.S. Army Corps of Engineers CRD-C621 specifications when used as directed.

	<u>Plastic</u>	<u>Flowable</u>	<u>Fluid</u>
WATER:	15%	17%	19%
COMPRESSIVE STRENGTH:			
ASTM C-942			
• 24 hours	3,600 psi	3,400 psi	2,200 psi
• 3 days	7,000 psi	6,700 psi	6,500 psi
• 7 days	8,000 psi	7,800 psi	7,400 psi
• 28 days	9,500 psi	9,000 psi	8,800 psi
SET TIME:			
ASTM C-191			
• Initial Set	4:00	4:40	5:30
• Final Set	6:00	6:30	7:30
CONSISTENCY FLOW:			
ASTM C-230			
	105%	113%	141%
VOLUME CHANGE, % EXPANSION:			
ASTM C-387			
• At Final Set	+0.40	+0.38	+0.08
• After 24 hours	+0.28	+0.30	+0.04
VOLUME CHANGE, % EXPANSION:			
CRD C-621			
• 3 days	+0.08	+0.07	+0.07
• 7 days	+0.08	+0.07	+0.07
• 14 days	+0.08	+0.07	+0.05
• 28 days	+0.08	+0.07	+0.05

10. Limitations

Adhering to recommended water additions is very important. Exceeding the maximum recommended water content per bag will result in inferior physical properties.

Do not wet the surface once the grout material has set.

Do not apply when temperatures are below 50°F or above 90°F.

11. Coverage

One 50 lb. bag (22.68 kg) yields approximately 1/2 cu. ft.

1/2 cu. ft. 50 lb. bag (22.68 kg)

12. Warning

ASH GROVE® Non-Shrink Grout contains portland cement and sand. Normal safety wear such as protective clothing, boots, rubber gloves, dust masks, eye safety glasses should be worn while handling cement-based products. Material Safety Data Sheets are available upon request or at www.ashgrovepkg.com.

13. Limited Warranty

This product meets or exceeds applicable ASTM C-1107 standards in force at the time of packaging. Packager, having no control over the use of the material, does not guarantee finished work. Replacement of any defective product or refund of the purchase price of defective product shall be the buyer's sole remedy under this warranty.

THIS LIMITED WARRANTY EXCLUDES ANY LIABILITY FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT OR SPECIAL DAMAGES.

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