



packaging utility grout



1. Product Name

ASH GROVE PRO® Utility Grout
Product Number: 460

2. Manufacturer

ASH GROVE PACKAGING GROUP
10809 Executive Center Drive, Ste. 321
Little Rock, AR 72211
Phone: (888) 289.1117
Fax: (501) 224.3882
www.ashgrovepkg.com

3. Product Description

ASH GROVE PRO® Utility Grout is a non-shrink, and non-metallic mix designed for use where minimum shrinkage is required. 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 around steel windows and door frames.

BASIC USE:

Recommended for high strength grouting of:

- Anchor Bolts
- Structural Steel
- Concrete Columns
- Heavy Equipment and Machinery
- Dowel Rods
- Reinforcing Steel in Block Cells
- Steel Bearing Plates

COMPOSITION & MATERIALS:

ASH GROVE PRO® Utility 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 PRO® Utility 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
- Meets ASTM C-1107

5. Preparation

Selection of the grout is to be done by the engineer. Remove all unsound concrete, grease, oil, paint, and any other foreign material that will inhibit performance. Prior to grout placement, all surfaces must be clean and saturated with water for 24 hours. Remove excess water before placing the grout.

Ash Grove Pro Utility 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 absorbing excessive amounts of water.
- 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.

For dry pack application, refer to:

Portland Cement Association - Cementitious Grouts and Grouting (EB111.01T). The form work must be rigid and well secured to withstand the impact of grout placement.

6. Mixing Instructions

Pour ASH GROVE PRO® Utility Grout into a clean mixing container. Add minimum amount of clean water to achieve desired grout consistency. The water quantities shown are approximate and may vary slightly with type of equipment and application conditions.

For optimum application and product performance, the mix temperature should be 60° F to 70° F at time of placement. This can be done when applying at temperature extremes by storing ASH GROVE PRO® Utility Grout bags at 60° F to 70° F, 12 to 24 hours prior to mixing. Addition of cold water (45° F) at high temperatures (90° F) or warm water (80° F) at low temperatures (50° F) will also aid in adjusting the mix temperature.

Water demand and mix temperature must be determined using standard test methods for consistency and temperature measurement at the time of application.

Desired Grout Consistency:

Plastic (Trowel Consistency) – Approximately 1 gallon of water will yield 0.51cu. ft. with a unit weight of 126 lbs. per cu. ft.

Flowable (Pumping Consistency) – Approximately 1.1 gallons of water will yield 0.51 cu. ft. with unit weight of 125 lbs. per cu. ft.

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.



packaging
utility grout (cont.)

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

Forms may be removed as soon as the grout is firm and cannot be penetrated by a pointed masonry trowel. Exposed shoulders can be left in place or trimmed. After the forms are removed, prevent evaporation by keeping the exposed surfaces wet for 48 hours. Protect from freezing for a minimum of 48 hours after placing.

Cure grout with wet burlap or ASTM C-309 approved curing compound.

Utility Grout can be exposed under normal weathering conditions. 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	3,000 PSI	2,500 PSI	2,000 PSI
• 3 days	5,500 PSI	3,500 PSI	3,000 PSI
• 7 days	6,500 PSI	5,500 PSI	4,500 PSI
• 28 days	8,500 PSI	7,000 PSI	6,000 PSI

SET TIME:

ASTM C-191

• Initial Set	2:30	2:50	3:10
• Final Set	4:00	4:30	5:05

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.

Do not place GROUT in lifts greater than 4" unless the product is extended with 50% by weight pea gravel to dissipate the heat of hydration

11. Coverage

One 50 lb. bag (22.70 kg) yields approximately 1/2 cu. ft.

1/2 cu. ft. 50 lb. bag (22.70 kg)

12. Warning

ASH GROVE PRO® Utility 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.

EXCEPT FOR THE LIMITED WARRANTY MADE ABOVE, PACKAGER SPECIFICALLY DISCLAIMS AND EXCLUDES ANY OTHER EXPRESS WARRANTY, ANY IMPLIED WARRANTY OF MERCHANTABILITY OF GOODS AND ANY IMPLIED WARRANTY OF FITNESS OF GOODS FOR ANY PARTICULAR PURPOSE.

Ash Grove Packaging reserves the right to change specifications without notice.