1. Product Name
ASH GROVE PRO® Portland/Lime Cement
Product Number: 190

2. Manufacturer
ASH GROVE PACKAGING GROUP
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3. Product Description
ASH GROVE PRO® Portland/Lime Cement is available in Type N, S and M formulations and conforms to ASTM C-270 specifications for mortar when mixed with the specified proportions of ASTM C-144 mason’s sand.

BASIC USE:
Recommended for general masonry use for:
• Mortar brick of any type
• Mortar concrete block of any type
• Mortar stone of any type
• Tuck-pointing
• Meets ASTM C-270 specification

COMPOSITION & MATERIALS:
ASH GROVE PRO® Portland/Lime Cement is precisely and uniformly blended mixture of Portland cement, mason’s lime, water repellent admixture and other proprietary ingredients (including standard and custom mineral oxide pigments).

4. Advantages/Benefits
ASH GROVE PRO® Portland/Lime Cement has several advantages including:
• Available in 62 standard Colors
• Quality Controlled
• All Colors Available in Types N, S, M
• Made with strict quality control guidelines
• Produced with stable lightfast mineral oxide pigments
• Factory blended to help eliminate on-site errors
• Water Resistant

5. Preparation
Follow accepted good masonry construction practices. Have available clean water from the same source for the entire job. Use clean, consistent mason’s sand conforming to ASTM C-144. Erect a sample panel using job materials and joint type to more accurately evaluate mortar color and wall appearance.

6. Mixing Instructions
For each bag of Ash Grove Pro Portland/Lime Cement, use approximately 2 ½ gallons of water, and 2 ¼ - 3 cu. ft. of damp, loose mason’s sand. Place half of the required mixing water into a clean mechanical mixer. Start the mixer and add half of the required sand, followed by the required bags of Portland/Lime Cement, and the remaining sand. Continue mixing and add the remaining water until a uniform workable consistency is obtained. Mix for a minimum of 5 minutes after all materials have been added to the mixer. Allow the mixture to slake for approximately 5 minutes and remix before use.

7. Placement
For laying brick, block or stone:
Placement temperatures: Minimum Maximum
Substrate 40°F 90°F
Mix 60°F 80°F
Air 40°F 90°F
Tool all joints when they reach the same degree of hardness. Tooling joints when mortar is too wet can lighten the color while tooling the joints when the mortar is dry may result in a darker joint. The use of admixtures, particularly accelerators, is not recommended. DO NOT clean mortar joints with acid as acid will attack the cement loosening the pigments and exposing sand grains.

8. Curing
Under normal weather conditions, damp curing is not necessary. On days with extremely high temperatures or wind, damp curing is advisable. In damp curing, lightly mist the walls. Do not allow water to run down the wall as it will wash out the color in the mortar and leave streaks.

Pre-soaking a very light-weight or porous block or brick is helpful before applying the mortar. This will keep the water in the mortar and not allow it to be drawn out of the mortar and into the brick.

9. Technical Information
ASTM SPECIFICATIONS:
ASTM C-270 Standard Specification for Mortar for Unit Masonry
ASTM C-144 Standard Specification for Aggregates for Masonry Mortar

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10. Limitations
Adhering to the specified amount of water additions and properly graded sand meeting ASTM C-144 specifications is very important. Exceeding maximum recommended amounts per bag or using incorrect type of sand will result in inferior physical properties. Do not add anything to the mix, especially accelerators.

Do not use when temperatures are below 40°F or if temperature is expected to fall below freezing within a 48-hour period. Do not apply to substrates that are frozen or contain frost. Keep in mind that lower temperatures will cause the mortar to take longer to set while hotter temperatures will cause mortar to set up faster. Keep tooling times consistent for consistent color.

11. Coverage
70 lb. bag (31.75 kg)
- 125 – 135 Modular Bricks
- 95 – 105 Closure Bricks
- 95 – 105 King Bricks
- 80 – 90 Utility Bricks
- 55 – 60 4" Concrete Blocks
- 50 – 55 6" Concrete Blocks
- 45 – 50 8" Concrete Blocks
- 28 – 32 12" Concrete Blocks

12. Warning
ASH GROVE PRO® Portland/Lime Cement contains cement. 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-270 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.