1. Product Name
ASH GROVE PRO MIX® Masonry Mortar Type S
Product Number: 611

2. Manufacturer
ASH GROVE PACKAGING GROUP
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3. Product Description
ASH GROVE PRO MIX® Masonry Mortar Type S is ideal for contractor use in laying brick, block and stone or repairing masonry walls. ASH GROVE® Pro Masonry Mortar Type S is thoroughly pre-mixed to ensure maximum strength and workability. The mortars can be pre-colored and/or an integral water repellent can be incorporated.

BASIC USE:
Recommended for exterior work at or below grade specifically on:
• Foundation walls
• Retaining walls
• Manholes
• Sewers
• Pavements
• Walks
• Patios

COMPOSITION & MATERIALS:
ASH GROVE PRO MIX® Masonry Mortar Type S is a uniformly blended and ready to use mixture of masonry cement (ASTM C91), fine graded sand (ASTM C144) and other approved ingredients specifically formulated for masonry applications. Mineral oxide pigments and/or an integral water repellent may also be incorporated when requested.

4. Advantages/Benefits
ASH GROVE PRO MIX® Masonry Mortar Type S has several advantages and features including:
• High durability and impact resistant
• Excellent workability
• Strong, durable and long-lasting mortar bond
• Uniform aggregate sizes ensure easier mixing
• Consistent quality and yield versus jobsite mix
• Thoroughly pre-blended mixture requires no dry mixing

5. Preparation
All surfaces that will be in contact with ASH GROVE PRO MIX® Masonry Mortar Type S must be entirely free from oil, grease, or any other foreign substances which may interfere with the bond and chemical actions of the material.

Prior to laying brick, block or stone dampen the exposed surfaces and clean thoroughly with water. Make sure that all supportive footings are substantial to hold the stress load.

For mortar repairs chisel out mortar joints to ¾” depth. Remove all loose mortar and sand and dampen the cleaned joint with water prior to application of masonry mortar mix.

6. Mixing Instructions
Use a clean mechanical mixer. Place the required mixing water in the mixer, 1½ gallons per bag, and start the mixer. Be sure to use clean water. Add the required bags of ASH GROVE PRO MIX® Masonry Mortar Type S. Continue mixing and adjust the water until a uniform workable consistency is obtained. Mix for a minimum of 5 minutes after all materials have been added to the mixer.

When using ASH GROVE® Cement Color on the jobsite for colored mortar, add and mix thoroughly into the mortar prior to adding water to achieve decorative and creative colors. Available colors are red, black, buff and brown.

7. Color Uniformity
Follow accepted good masonry construction practices. Use clean water from the same source for the entire job. Maintain the same mix proportions from batch to batch. Tool all joints when they reach the same degree of hardness. Toothing when mortar is soft can lighten color, and toothing when mortar is hard can darken color. The use of admixtures, particularly accelerators, is not recommended. Do not clean colored mortar joints with acid. Acid attacks cement, loosening pigments and exposing sand grains.

8. Placement
For laying brick, block or stone:
Starting in a corner, apply a ½” thick bed of ASH GROVE PRO MIX® Masonry Mortar Type S onto the footing. Set corner brick or block into the mortar bed and tap into place. Lay successive masonry units into position after first applying mortar to the head joint and tap into place, maintaining at least 3/8” thick mortar joint.

For mortar repairs:
Use a tuck-point trowel or jointing tool to apply mortar on the brick, block or stone and compact.

9. Curing
Clean all excess mortar off the brick and block faces as soon as possible. Use a jointing tool to smooth and seal the mortar joints after the joint becomes thumbprint hard. Doing so will make the joint watertight and provide a neat appearance. In very hot and dry weather conditions, lightly mist the walls to prevent premature drying of mortar. Do not allow water to run down the wall since it may cause the color to be washed out.

10. Technical Information

ASTM SPECIFICATIONS:
- Meets requirements of ASTM C270 specifications for Type S mortar when used as directed.

COMPRESSIVE STRENGTH (ASTM C109):
- 28 days: 1,800 psi (12.4 Mpa)

11. Limitations

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

High IRA (Initial Rate of Absorption) may also decrease strengths. Pre-soaking them is helpful before placing any of the units into the wall. This will keep the water in the mortar and not allow it to be absorbed too rapidly by the masonry units being laid.

Mortar will not bond well to wood, asphalt, or any other foreign substances.

Do not place when temperatures are below 40ºF. In cold weather, use warm water and protect from freezing for 48 hours.

12. Coverage

<table>
<thead>
<tr>
<th>Masonry Unit</th>
<th>80 lb. bag</th>
<th>3000 lb. bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Brick</td>
<td>44</td>
<td>1650</td>
</tr>
<tr>
<td>Queen Size Brick</td>
<td>36</td>
<td>1350</td>
</tr>
<tr>
<td>King Size Brick</td>
<td>32</td>
<td>1200</td>
</tr>
<tr>
<td>Utility Brick</td>
<td>26</td>
<td>975</td>
</tr>
<tr>
<td>4” Block</td>
<td>17</td>
<td>625</td>
</tr>
<tr>
<td>6” Block</td>
<td>14</td>
<td>525</td>
</tr>
<tr>
<td>8” Block</td>
<td>14</td>
<td>525</td>
</tr>
<tr>
<td>12” Block</td>
<td>13</td>
<td>475</td>
</tr>
</tbody>
</table>

Unit yields are not exact and will vary depending on labor practices and site conditions.

13. Warning

ASH GROVE PRO MIX® Masonry Mortar Type S contains 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.

14. Limited Warranty

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

This product meets or exceeds applicable ASTM C270 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.

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