



Type S Mortar

TILE & STONE INSTALLATION PRODUCTS

DESCRIPTION

Siena Type S Mortar is a factory blended mixture of portland cement, lime, masonry sand and other proprietary additives that has excellent workability, sag resistance, open time, flexural strength and compressive strength. The Siena Type S Mortar is manufactured to the highest quality control and exceeds ASTM C270 requirements. Ideal for use in bonding and grouting most lightweight natural and manufactured stone veneers, thin brick, precast, masonry brick and block. Siena Type S Mortar is available in grey and also a variety of standard and custom colors with optional Siena Decorative Sand packs available for enhanced grout appearance. Siena Admix AX300 can be used with Siena Type S Mortar to create a polymer-modified mortar for use on heavy stone installs or wherever polymer-modified mortar is required.

BASIC USES

Siena Type S Mortar is designed to bond and grout most masonry lightweight natural and manufactured stone veneers, thin brick, precast, masonry brick and block to solid surfaces such as concrete, stucco brown coat and masonry in residential and commercial projects.

STORAGE

1. Store containers in a cool, dry location
2. Store at a temperature between 40°F (4°C) and 90°F (32°C)
3. Do not store in direct contact with the ground and/or concrete
4. Store out of direct sunlight
5. Protect containers from weather and other damage

RECOMMENDED SUBSTRATES

Siena Type S Mortar may be applied to the following substrates: Masonry, poured-in-place and tilt-up concrete, stucco brown coat, cement backer units (per manufacturers' specifications), portland cement mortar beds, brick and porous stone.

SURFACE PREPARATION

All surfaces to receive application must be stable, structurally sound, dry, clean and free of debris, dirt, dust, efflorescence, grease, oils, curing agents and cleaning solutions that would hinder proper bond. Ensure that all surfaces are free of any coatings, sealers, adhesive residues or gypsum-based underlayments. Smooth or painted cementitious surfaces can be prepared by mechanical means such as sandblasting or scraping. Dampen surface prior to application, but do not allow water to puddle. For more complete installation procedures see the TCNA (Tile Council of North America) Handbook & ANSI A108.5.

NOTE: Use polymer-modified mortar over a waterproof membrane such as Siena Dragon Skin. See "Mixing" section for polymer-modified mixing instructions.

MIXING

Mix approximately 2.5 gallons (9.4 liters) clean, potable water per 94-lb bag of Siena Type S Mortar. Water should be cool in temperature. Do Not use hot or warm water. Potable (water) means it is clean, clear liquid. Add approximately two thirds of the water (~1.6 gallons or ~6 liters) to the mixer or batch container. Gradually add Siena Type S Mortar while mixing. Add the remaining amount of water (~.9 gallons or ~3.4 liters) and continue to thoroughly mix for 3 to 5 minutes to achieve the desired creamy consistency. Allow mixture to slake (stop mixing) for 5 to 10 minutes then break the set (remix). When a polymer-modified mortar is needed, replace .75 gallons (2.8 liters) to 1.5 gallons (5.7 liters) of water with Siena Admix AX300 and follow mixing instructions above. Do not add additional water, admix or powder after slake period. During the application, occasionally stir the mixture to help maintain workability.

NOTE: Always maintain a consistent water-cement ratio to achieve consistency in workability and color.

APPLICATION

Apply Siena Type S Mortar per local code requirements and the recommendations of the stone veneer, thin brick or masonry product manufacturers' specifications.

FOR VENEER APPLICATION:

1. Trowel a thin layer of mortar to the substrate to create a bond layer. Prior to the mortar hardening, use a notched trowel to create a scratched surfaced.
2. Generously coat the back of the veneer product and apply to the substrate using firm pressure until excess mortar is squeezed from all sides of the veneer.
3. If desired, grout the joints with mortar using a grout bag or pointing trowel where additional material is needed. Once the grout has started to set, approximately thumb print hard, strike back or sponge the grout to achieve the desired appearance.
4. Brush loose mortar from veneer surface and joints.

CURING

Cure the freshly applied material for at least 28 days. Curing time may vary due to porosity of substrate, surface preparation, ambient temperatures and humidity.

PACKAGING

This product is packaged in 50 lb (22.7 kg) and 94 lb (43 kg) bags.

MATERIAL CALCULATOR

Visit the Siena web site at www.SienaProducts.com and click on the "Material Calculator" tab for recommended products and to calculate the amount of materials needed for each project. Always follow all manufacturers' recommendations and warranty information prior to any tile or stone installation.

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TECHNICAL DATA

Exceeds the requirements for ASTM C270

Bucket Life @ 73° F (23°C)	3 Hours
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Compressive Strength ASTM C109

(Dry Cure 7 Days)	1,820 psi
(Dry Cure 28 Days)	2,175 psi

Setting Time ASTM C266

Initial Set	4.5 Hours
Final Set	6.75 Hours

LIMITATIONS

DO NOT apply when temperatures are below or expected to fall below 40°F (4°C). When hot, dry, or windy conditions exist, moist curing and protection must be provided. The ambient and surface temperature must maintain the above requirements until fully cured. Material that is allowed to freeze may suffer irreparable damage. Protect all work from inclement weather with an approved protective system until fully cured.

DO NOT apply if there are contaminants on the receiving surface. Contaminates may include, but are not limited to, dust, debris, efflorescence, and/or oils.

DO NOT saturate the wall during preparation and/or water curing.

NOTE: Failure to follow manufacturer's written specifications could result in the following, but not limited to spalling, cracking, peeling, chipping, delamination, discoloration, wash off, and overall system failure.

CLEANING

Cleaning may be accomplished with potable water only immediately after use.

SAFETY

Avoid contact with eyes or prolonged contact with skin. Wash thoroughly after handling. In case of eye contact, flush immediately with running water for at least 15 minutes. Consult a physician immediately. Do not take internally. Be sure to provide adequate ventilation in enclosed areas. Use of an approved respirator is recommended.

WARNING

Omega Products International, Inc., as a blender of processed material in the State of California, is required by Proposition 65 to warn that one or more of the components contained in this product, could contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. The State of California (Proposition 65) requires this warning in the absence of definitive testing to prove that the defined risks do not exist. We believe this product complies with all other applicable state and federal laws and regulations governing manufacturing, distribution and intended use. User is solely responsible for the legal disposal of this container and/or its contents.

KEEP OUT OF REACH OF CHILDREN**DISCLAIMER**

Omega Products International, Inc. [Manufacturer] MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PRODUCT SOLD HEREIN. The recommendations, suggestions, statements and technical data are based on the best knowledge available to Manufacturer and are given for informational purposes ONLY and without any responsibility for their use. It is expressly understood and agreed, as a condition of the use of this product, that the buyer's sole and exclusive remedy for any claimed defective product against Manufacturer shall be the replacement of products actually proven to be defective. Handling and use of the products are beyond the control of Manufacturer; therefore, no warranty is made, expressed or implied, as to the results obtained from the use of the product or against any claims for infringement of patents resulting from use of the product. Under no circumstance shall Manufacturer be liable for incidental or consequential damages arising out of the use or the improper application of the product. Before applying the product, the user shall determine the suitability of the product for his/her independent use, assuming all risks and liability whatsoever in connection therewith. This writing constitutes a complete and exclusive statement of the understanding between Manufacturer and Buyer.

CLAIMS

Any Claimant shall notify Manufacturer immediately in writing of any alleged defect in the material. Claimant will provide Manufacturer with a reasonable and exclusive opportunity to investigate and test for the alleged defect. For any claim that is not valid Claimant agrees to pay Omega's reasonable charges, including travel and labor associated with investigation of such claim.

TECHNICAL ASSISTANCE

Technical assistance and information is available by calling Omega Products International, Inc. at (800) 600-6634 or FAX (951) 520-2594 or by e-mail at "info@omega-products.com".

WARRANTY

The following is made in lieu of all expressed and implied rights, warranties and conditions, statutory or otherwise. The Manufacturer's only obligation shall be to replace such quantity of products proven to be defective within one year following the date of manufacture, provided that the alleged defective product is returned prepaid to the Manufacturer's plant and is accompanied with proof of purchase and batch number.

Manufactured by

**The Professional's Choice**

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