



Siena LFT, LHT M400

POLYMER-MODIFIED PORTLAND CEMENT MORTAR

PACKAGING

50 lbs. (22.7 kg) Bags

STORAGE

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

DRYING & CURING

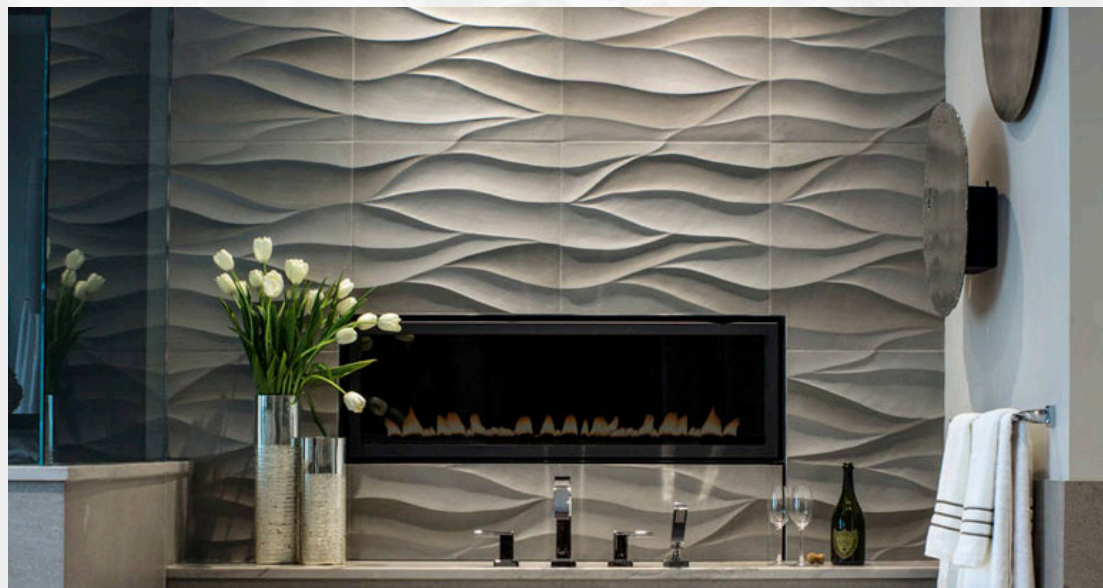
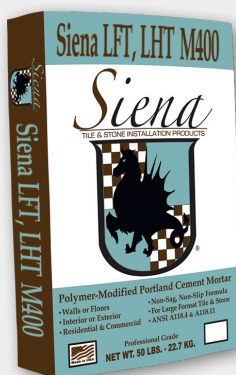
Allow freshly applied material to dry at least 24 hours before grouting or light foot traffic. Drying time may vary due to porosity of substrate and tile, climate, job conditions and should not take more than 24 hour at an ambient and surface temperature of 70°F (21°C) and 55% humidity. When used to install tile in an area that will be continually wet (pools, fountains) allow complete installation to dry a minimum of 14 days before exposure to water. Material is fully cured in 28 days

GROUTING

Grouting should be done 24 - 48 hours after tile installation.

MATERIAL CALCULATOR

Visit the Siena web site at 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.



Siena LFT, LHT M400 is a professional polymer-modified mortar manufactured with a mixture of portland cement, graded aggregates and other proprietary additives to produce a high quality mortar for walls and ceilings, with high bond strength, sag resistance, greater open time and coverage than standard mortars. Siena LFT, LHT M400 is available in either white or grey color and exceeds the requirements of ANSI A118.4 and A118.11.

FEATURES	BENEFITS
Professional Mortar	High Bond Strength
Walls and Ceilings	Excellent Sag Resistance
Large Format & Heavy Tiles	Up to 3/4" Thick, Reduces Lippage
Residential & Commercial	Interior and Exterior

BASIC USES

Siena LFT, LHT M400 is specially formulated with sag resistance and non-slip properties for large format, heavy and ungauged tiles and stones in vertical and horizontal installations. Siena LFT, LHT M400 can be used as a setting bed 3/16" to 3/4" thick on floors, walls and ceilings in residential, commercial, interior and exterior projects.

RECOMMENDED SUBSTRATES

Properly prepared substrates includes: Cured concrete (28 days), portland cement mortar beds, brown coat, backer boards (per manufacturer's specifications), gypsum boards (dry interior walls only), masonry block, brick, exterior grade plywood, well bonded existing tile and stone properly prepared with Siena Gripping Primer.

SURFACE PREPARATION

All surfaces to receive application must be properly cured, structurally sound, clean and free of debris, dirt, dust, efflorescence, wax, grease, oils, curing agents, cleaning solutions, sealers, adhesive residues or gypsum-based underlayments, or anything that would hinder proper bond. Smooth or painted surfaces can be prepared by mechanical means such as sanding, scraping or using Siena Gripping Primer. Dampen surface prior to application, but do not allow water to puddle. Substrate temperature must be within 45°F (7.2°C) and 85°F (29.4°C). For complete installation methods see the TCNA (Tile Council of North America) Handbook and ANSI A108.5.

MIXING

Mix by hand or use a mixer not to exceed 300 rpm to avoid too much entrapped air. Add gradually one 50 lb sack of Siena LFT, LHT M400 to approximately 1 1/2 gallons (5.7L) of potable water. Water must be cool in temperature, clean and clear. Do Not use hot or warm water or admix. Mix material thoroughly to a smooth consistency and let it slake (stop mixing) for 10 minutes and then break the set by remixing. Do Not add additional water, admix or powder after slake period. During application, occasionally stir the mixture to help maintain workability.



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CEMENTITIOUS SUBSTRATES

Cementitious substrates can be cleaned by mechanical means such as sanding, scraping, scraping or chipping. Smooth painted or waterproof cementitious surfaces can be prepared by mechanical means such as sandblasting, scraping or using Siena Gripping Primer. Dampen the surface prior to the application but do not allow water to puddle. Substrate deflection not to exceed L/360. For complete installation methods see the TCNA (Tile Council of North America) Handbook and ANSI A108.5.

NON-CEMENTITIOUS SUBSTRATES

For walls, apply a 3/8" to 3/4" thick layer of wire reinforced mortar bed, and for floors apply a minimum of 1 1/4" wire reinforced mortar bed. Let it set for at least 20 hours and then apply the mortar.

TILE SUBSTRATES

Use Siena Gripping Primer over the existing tile and allow to dry (20-60 mins.) before applying mortar. Existing tile must be sound, well bonded, clean and free of anything that would hinder proper bond or prevent adhesion. For complete installation methods see the TCNA (Tile Council of North America) Handbook and ANSI A108.5.

PLYWOOD SUBSTRATES

Use only over exterior grade plywood. Wooden flooring should not have a deflection exceeding L/360 of span in either dead or live loads. Securing should be done with screw-type nails and glue. A 3/16" (4.8 mm) gap for expansion should be left about the plywood sheets and surrounding materials. These gaps should be left empty after the installation.

APPLICATION

The size of the working area should be such to be covered with tiles within 15 - 20 minutes. Using the flat side of the notch trowel apply a tight, thin layer of mortar over the substrate. Then add more mortar and comb the material in one direction using the appropriate notch size to achieve 100% contact to the back of the tiles. Set the tiles over the mortar, applying firm pressure to flatten the ridges and assure good contact. Periodically check already placed tiles to verify that there is sufficient mortar transfer with the back of the tile. Back-butter the tiles if required. Align tiles immediately after their placement and clean any excess material with a damp sponge. Tiles that have been setting for more than 10 - 15 minutes should not be readjusted.

LIMITATIONS

DO NOT apply Siena LFT, LHT M400 over gypsum mortar beds, asphalt sheeting, vinyl covered wall board, Masonite, cement asbestos board, metal, glass, plastic or any dimensionally unstable substrate. DO NOT apply at temperatures below 45°F (7.2°C) or above 85°F (29.4°C). When hot, dry, or windy conditions exist, protection must be provided. The ambient and surface temperature must maintain the above requirements until fully dried. Material that is allowed to freeze may suffer irreparable damage. Protect all work from inclement weather with an approved protective system until fully dried (See Drying & Curing). DO NOT add any other materials to the mixture of the product without written approval from Siena, Omega Products International. DO NOT deviate in the mixing or application procedures contained in this, or any other Siena Product data sheets without written approval from Siena or Omega Products International. DO NOT use with green or red marbles as they may react with the mortar, warp and detach. For these moisture sensitive materials use Siena Epoxy Mortar & Grout.

TECHNICAL DATA

Open Time at 73°F (23°C)	15 Minutes
Adjustability at 73°F (23°C)	12 - 15 Minutes
Bucket Life at 73°F (23°C)	4 Hours
Compressive Strength ASTM C-109	>5000 psi
Shear Bond ANSI A118.1	
Glazed Wall Tile	
7 Days	>500 psi
28 Days	>600 psi
Porcelain Tile	
7 Days	>250 psi
28 Days	>400 psi
Quarry Tile To Plywood	
7 Days	>200 psi
28 Days	>300 psi

COVERAGE

Square Notch Trowel Coverage

1/4" x 1/4" x 1/4" (6 x 6 x 6 mm)	95 ft ² (8.8m ²)
1/4" x 3/8" x 1/4" (6 x 9.5 x 6 mm)	75 ft ² (7.0m ²)
1/2" x 1/2" x 1/2" (13 x 13 x 13 mm)	60 ft ² (5.6m ²)

Note: Values listed above are typical results for tests indicated and should not be considered specifications. Actual product performance will depend on job conditions, temperature, humidity and application methods.

EXPANSION & CONTROL JOINTS

Never apply Siena LFT, LHT M400 over any expansion or control joint. For more information regarding this types of joints see TCNA (Tile Council of North America) Handbook and EJ-171.

TECHNICAL ASSISTANCE

Technical information is available on our web site at: SienaProducts.com, by calling Omega Products International at: 800.600.6634, or by email at: info@omega-products.com

CLEANING

Cleaning may be accomplished with water 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 its contents.

KEEP OUT OF REACH OF CHILDREN

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