HERITAGE HIGH-CALCIUM SLAKED LIME PUTTY SLP

Product Data Sheet

Description and Use

Heritage High-Calcium Slaked Lime Putty – SLP is a historically accurate lime binder used to blend bedding and pointing (tuckpointing) mortar, and plaster and stucco. SLP is designed to match the performance characteristics of traditional mixes, that facilitates safe and durable repairs of masonry buildings originally constructed without portland cement.

This single component binder is and ready to be blended with aggregate. Produced by slaking high-calcium quicklime, Heritage High-Calcium Slaked Lime Putty – SLP contains no cements, polymers, or admixes of any kind. Unlike soaked/wetted hydrated lime slaked and aged high calcium lime putty is comprised of small and highly active lime particles that are suitable for use as a binder with no other additional ingredients.

Mortars and plasters mixed from SLP are soft, permeable and more flexible mixes than modern portland cement mixes, providing the best possible protection of masonry units from damage caused by building movement, thermal expansion/contraction, freeze-thaw cycles and salt migration (efflorescence).

Call USHG for project-specific recommendations regarding applications o of severe exposure, such as wall parapets, chimneys, basements and masonry elements exposed to severe weather. SLP is suitable for low-fired historic masonry units with high rates of initial absorption. This product is a traditional non-hydraulic binder that cures by carbonation, meaning a reaction with carbon dioxide in air. Carbonation reaction takes place relatively slowly and only in a dry state. Non-hydraulic lime putty mixes can be reworked up to 24 hours (or more) after initial installation

Repairs to load-bearing masonry should only be attempted using appropriate materials, tools and techniques and only by educated/trained installers. Many homeowners can successfully execute pointing and small repairs. Structural repair conditions should be evaluated by professionals. Installation guides and training/certification, offered by US Heritage Group, are strongly recommended for all installers.

Features and Benefits

- Authentic product formulation ensures compatibility with historic masonry units and mortar.
- USHG provides unmatched product and project support, for one pail or hundreds, to ensure excellent results for every installation.

Sales, Product and Project Support

US Heritage Group supports, sells and ships all products directly to ensure we consistently deliver the highest quality results possible. Contact USHG for a variety of support services:

- Specifier education
- Project-specific technical advice
- Specification guides and support
- Custom color and aggregate matching
- Installation guides and training

Product Standards (Conformance)

ASTM C5	Quicklime for Structural Purposes
ASTM C1489	Lime Putty for Structural Purposes
ASTM C1713	Mortars for the Repair of Historic Masonry
ASTM E2260	Guide for Repointing Historic Masonry
NPS Preservation Brief #2	Repointing Mortar Joints in Historic Masonry Buildings

Packaging and Coverage

3.5 gallon pail	1 Cubic Foot of Mortar*
55 gallon drum	17

*Estimates based on standard mix ratios, actual yield may vary

See USHG **Installer Guide to Products and Services** for unit coverage and cost estimations

Limited Warranty

U.S. Heritage Group, Inc. warrants this product to be of merchantable quality when used or applied in accordance with the manufacturer's instructions. This product is not warranted as suitable for any purpose or use other than the general purpose for which it is intended. Liability under this warranty is LIMITED to the replacement of the product (as purchased) found to be defective, or at the shipping companies' option, to refund the purchase price. In the event of a claim under this warranty, notice must be given in writing to U.S. Heritage Group, Inc., 3516 North Kostner Ave., Chicago, IL 60641. THIS LIMITED WARRANTY IS ISSUED AND ACCEPTED IN LIEU OF ALL OTHER EXPRESSED WARRANTIES AND EXPRESSLY EXCLUDES LIABILITY FOR CONSEQUENTIAL DAMAGE

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Surface Preparation

Successful installation of SLP materials rely on proper surface preparation that involves careful evaluation and cleaning of substrates. For additional surface preparation details see **Heritage Lime Putty Mortar** or **Heritage Lime Putty Plaster** datasheets then contact USHG with project-specific issues.

1. Clean the substrate as needed to remove soiling, efflorescence, coatings, etc.
2. Remove and repair or replace any unsound masonry units and bedding mortar.
3. Clean surfaces to remove all dust and debris.
4. Dampen substrate to surface-saturated dry condition
5. Protect installation area from rain, sun, high winds, extreme hot and cold temperatures before, during and after application.

Mixing Proportions

SLP binder should be mixed with sands conforming to ASTM C144 "Standard Specification for Aggregate for Masonry Mortar". If color is to be added to the mixture, iron oxide based masonry pigments should be used and comprise no more than 10% of the total weight of binder in the mix design. The proper mix ratios should be based on the existing materials and the onsite conditions.

1. Typical mix design for lime putty mortars is 1 part SLP to 2.5-3 parts sand.
2. Typical mix design for lime putty plasters is 1 part SLP to 2-2.5 parts sand.

Mixing Instructions

Proportions of ingredients must be measured by weight or precise volume to ensure a consistent mix ratio. Using shovelfuls to measure ingredients will lead to inconsistency in the mix formulation. After all ingredients are properly measured, the material must be blended in a vertical shaft mixer or paddle mixer for at least 10 minutes to ensure even mixing and distribution. After mixing is complete, the material is ready to apply in accordance with the instructions in the **Heritage Lime Putty Mortar** or **Heritage Lime Putty Plaster** datasheets.

Application

See **Heritage Lime Putty Mortar** or **Heritage Lime Putty Plaster** datasheets for information on the proper installation techniques of SLP material mixes.

Cleaning

This section applies only to removal of installed mortar residue. Masonry should be cleaned before application. Do not use metal scrapers or brushes. Do not use acidic or alkaline cleaners.

1. **Immediately after installation of mortar during thumbprint hard and surface dry condition:** thoroughly clean the exposed masonry surfaces of excess mortar. Use dry wood scrapers, stiff-nylon or fiber brushes. Do not use water to clean uncured mortar!
2. **During initial damp curing conditions and period:** Allow the mortar to time harden and test to check that cleaning can be accomplished without surface erosion or lime-run. Dampen with water then use wood scrapers, stiff-nylon or fiber brushes.
3. **After initial curing period:** Use appropriate masonry cleaner following manufacturer instructions.

Curing

SLP mortars and plasters cure by carbonation through reaction with carbon dioxide. Uninterrupted execution of the curing process, immediately after installation, is essential to achieve proper mortar performance. Protect material from driving rain, sun, high winds, and temperatures above 90 or below 40 degrees during initial curing cycles. SLP must be protected from freezing for 28 days after installation.

1. Dampen fresh mortar or plaster using pump sprayer or garden hose on mist setting.
2. Repeat the misting procedure 3 times a day for the first 3 days after application.

Storage and Shelf life

Save any unused material and return it to the original shipping container. Pour one inch of water on the top of the material and cover with plastic sheet or burlap and reseal the container. Protect from freezing, extreme heat and direct sunlight. This material can be kept indefinitely if damp condition is maintained. Inspect and remix every 3 months adding water as needed. Dispose of containers with any material that has dried.

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