

MANUFACTURER'S SPECIFICATIONS
Section 09225 – ST. ASTIER LIME PLASTER (NHL)
PLASTER ON STRAWBALE

ST. ASTIER NATURAL HYDRAULIC LIME PLASTER

PART 1 – GENERAL

1.1 Summary

- A. This Section includes St. Astier Natural Hydraulic Lime plaster system.
- B. Related Sections
 - 1. Section [_____ – _____]: Wall substrate surface.

1.2 References

- A. American Society for Testing and Materials
 - 1. ASTM C25 – Test Methods for Chemical Analysis of Limestone, Quicklime and Hydrated Lime.
 - 2. ASTM C91 – Standard Specification for Masonry Cement.
 - 3. ASTM C109 – Test Method for Compressive Strength of Hydraulic Cement Mortars.
 - 4. ASTM C141 – Standard Specification for Hydraulic Lime for Structural Purposes.
 - 5. ASTM C144 – Standard Specification - Aggregate for Masonry Mortar.
 - 6. ASTM C150 – Standard Specification for Portland Cement.
 - 7. ASTM C206 – Standard Specification for Finishing Hydrated Lime.
 - 8. ASTM C207 – Standard Specification for Hydrated Lime for Masonry Purposes.
 - 9. ASTM C897 – Standard Specification for Aggregate for Job-Mixed Portland Cement-Based Plasters
 - 10. ASTM C926 – Standard Specification for Application of Portland Cement-Based Plaster.
 - 11. ASTM C979 – Standard Specification for Pigments for Integrally Colored Concrete.
- B. Portland Cement Association
 - 1. PCA – Portland Cement Plaster (Stucco) Manual.

C. European Standard

1. EN 459-1 Building Lime – Part 1: Definitions, Specifications and Conformity Criteria
2. EN 459-2 Building Lime – Part 2: Test Methods
3. EN 459-3 Building Lime – Part 3: Conformity Evaluation

1.3 Performance Requirements

- A. Structure to be designed in such a way as to minimize the transfer of stress from building to plaster skin.

1.4 Submittals

- A. Section 01330 – Submittal Procedures: Submittal Procedures.
- B. Product Data: Submit data on plaster materials, characteristics and limitations of products specified.
- C. Samples: Submit two samples, 12 inch by 12 inch in size, illustrating finish color and texture.

1.5 Quality Assurance

- A. Perform Work in accordance with Manufacturer's Instructions.

1.6 Qualifications

- A. Manufacturer: All St. Astier NHL shall be obtained from:
Lime Works.US
PO Box 151
Milford Square, PA 18935-0151
215-536-6706
215-536-2281 Fax
begreen@limeworks.us
www.limeworks.us
- or its authorized distributors.
- B. Installer: Company specializing in performing plaster/stucco work with a minimum of three (3) years experience.

1.7 Mock-up

- A. Section 01400 – Quality Requirements: Requirements for mock-up.
- B. Construct mock-up, ___ feet long by ___ inch wide, including exterior and interior wall and ceiling system illustrating surface finish and color.
- C. Locate where directed by Architect.
- D. [Incorporate accepted mock-up as part of Work.]

1.8 Pre-Installation Meetings

- A. Section 1300 – Administrative Requirements: Pre-Installation Meeting.
- B. Convene minimum one week prior to commencing work of this SECTION.

1.9 Environmental Requirements

- A. Provide environmental conditions at areas where Work of this SECTION is being performed to allow limeplaster to properly cure.
- B. Take precautionary measures necessary to assure that excessive temperature changes do not occur.
- C. Do not apply limeplaster unless minimum ambient temperature of 45 degrees F and a maximum of 85 degrees F has been and continues to be maintained for a minimum of 48 hours prior to application and until plaster is cured.
- D. Hot Weather Requirements: Protect limeplaster from uneven and excessive evaporation during dry, hot weather. Provide tarping over the outside of all scaffolding.

PART 2 – PRODUCTS

2.1 Lime Plaster (NHL)

- A. Manufacturer
 - 1. CESA – Imported and distributed by Lime Works.US
 - 2. Substitutions not permitted

2.2 Components

A. Plaster Base Materials

1. Binder: St. Astier Natural Hydraulic Lime NHL 3.5
2. Aggregate: Natural or Manufactured Sharp Sand with at least 4 grades forming a substantial part of the sand and no more than 3% of particles smaller than grade #200 (0.075mm).
3. [Pre-Mix : Ecologic G, Ecomortar G.]
4. [Fibers: _ inch nominal length glass fibers meeting requirements of ASTM C1116.] [Fibers: animal hair]

B. Plaster Finish Materials

1. Binder: St. Astier Natural Hydraulic Lime NHL 2.
2. [Pre-Mix : Ecologic F, Ecomortar F.]
3. Color Pigment: ASTM C979 mineral oxide type, [____]color.
4. Water: Clean, fresh, potable and free of mineral or organic matter capable of affecting plaster.

C. Finish Aggregate.

5. Aggregate: Natural or Manufactured Sharp Sand with at least 4 grades forming a substantial part of the sand and no more than 3% of particles smaller than grade #200 (0.075mm).

2.3 Mixes

- A. Scratch Coat: 1 part NHL 3.5 and [1.5] [2] parts of sand, proportioned by volume.

[1. Fiber Reinforcement: add [fiber] [hair] to scratch coat]

- B. Brown Coats: [1 part NHL 3.5 and [2] [2.5] parts of sand, proportioned by volume.] [Ready-Mix: Ecologic G, Ecomortar G]

- C. Finish Coat: [1 part NHL 2 and [2.5] [3] parts of sand, proportioned by volume.] [Ready-Mix: Ecologic F, Ecomortar F]

- D. Mix only as much plaster as can be used prior to initial set.
- E. [Add color pigments to finish coat.]
- F. Mix materials dry, to uniform color and consistency, before adding water.
- G. Protect mixtures from freezing, frost, contamination, and excessive evaporation.

PART 3 – EXECUTION

3.1 Examination

- A. Section 01300 – Administrative Requirements: Coordination and project conditions.
- B. Strawbale : Surface to be sound enough to receive plaster coat.
- C. Mechanical and Electrical: Verify surfaces within walls have been tested and approved.

3.2 Preparation

- A. Mist surfaces to reduce excessive suction.
- B. Prior to the scratch coat being applied, any excessive depression or hollow requiring dubbing out should be carried out using 1 to 1.5 minimum (NHL 3.5 to sand) mixed with straw.

3.3 Installation

- A. [Installation of Accessories:]
 - 1. [Install accessories in accordance with ASTM C1063.]
 - 2. [Place corner bead at external wall corners.]
 - 3. [Place casing beads at terminations of plaster finish. Butt and align ends. Secure rigidly in place.]
 - 4. [Install door and glazed frames plumb and level in opening. Secure rigidly in place.]
- B. [Control and Expansion Joints:]

1. [Install interior control and expansion joints.]
2. [Install exterior contraction joints after initial set, scribed as indicated on Drawings by cutting through 2/3 of lime plaster depth, neatly, in straight lines.]
3. [For horizontal exterior surfaces, install control and expansion joints as indicated on Drawings.]
4. [For vertical exterior surfaces, install control and expansion joints as indicated on Drawings.]

C. Plastering

1. Apply plaster in accordance with manufacturer's instructions.
2. Apply scratch coat to a nominal thickness of 3/4 inch in two passes, and brown coat to nominal thickness of [1/2] [3/4 in two passes] inch over strawbale surfaces.
3. Apply finish coat to a nominal thickness of [1/8] [3/16] [1/4] inch.
4. After curing, dampen previous coat prior to applying finish coat. ALLOW 7 to 10 DAYS BETWEEN COATS.
5. Apply finish coat [to indicated color and texture.] [to [light dash] [medium dash] [heavy dash] [fine sand float] [medium sand float] [heavy sand float] [combed] [glacier] [aggregate surfaced] [_____] texture with selected color..
6. Avoid excessive working of the surface. Delay troweling as long as possible to avoid drawing excess fines to surface.

3.4 Erection Tolerances

- A. Section 01400 – Quality Requirements: Tolerances.

3.5 Adjusting

- A. Section 01700 – Execution Requirements: Testing, adjusting, and balancing.

- B. Remove damaged or defective plaster by cutting and replace with specified materials to match adjacent plaster.

3.6 Schedules

END OF SECTION