



LaHabra Fastwall 300 Stucco Assemblies Specification

CSI SECTION 09 24 00

CSI SECTION 09 24 00 – PORTLAND CEMENT PLASTER

(LaHabra® Fiber Reinforced Stucco with Optional Krak-Shield)

PART 1 - GENERAL

1.1 SECTION INCLUDES

Supply and installation of LaHabra® Fastwall 300 Stucco Assemblies.

1.2 RELATED SECTIONS

- A. Section 03 30 00 - Cast-in-Place Concrete
- B. Section 04 20 00 - Unit Masonry
- C. Section 06 16 00 - Sheathing
- D. Section 07 25 00 – Water Resistive Barriers
- E. Section 07 62 00 - Sheet Metal Flashing and Trim
- F. Section 07 90 00 - Joint Protection
- G. Section 08 50 00 - Windows
- H. Section 09 21 16 - Gypsum Board Assemblies

1.3 REFERENCES

- A. ASTM C578 - Specification for Preformed, Cellular Polystyrene Thermal Insulation
- B. ASTM C847 - Standard Specification for Metal Lath
- C. ASTM C897 - Standard Specification for Aggregate for Job-Mixed portland Cement-Based Plaster
- D. ASTM C926 - Standard Specification for Application of portland Cement-Based Plaster
- E. ASTM C933 - Standard Specification for Welded Wire Lath
- F. ASTM C1032 - Standard Specification for Woven Wire Plaster Base
- G. ASTM C1063 - Standard Specification for Installation of Lathing and Furring for portland Cement Based Plaster
- H. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials
- I. UUB 790A - Specification for Building Paper

1.4 ASSEMBLY DESCRIPTION

- A. LaHabra® Fastwall 300 Stucco Assembly: A code complying water resistive barrier, wire fabric or metal lath, LaHabra Fiber-47 Fastwall Scratch and Brown ($\frac{3}{4}$ in (19 mm)) and either a LaHabra acrylic or elastomeric based finish coat.

-OR-

- A. LaHabra Fastwall 300 Krak-Shield™ Stucco Assembly: A code complying water resistive barrier, wire fabric or metal lath, LaHabra Fiber-47 Fastwall Scratch and Brown ($\frac{3}{4}$ in (19 mm)), LaHabra reinforcing mesh embedded in Stucco Level Coat, and either a LaHabra acrylic or elastomeric based finish coat.

1.5 SUBMITTALS

- A. General: Submit Samples, Water resistive barrier Evaluation Reports and manufacturers product datasheets in accordance with Division 1 General Requirements Submittal Section.
- B. Samples: Submit samples for approval. Samples shall be of materials specified and of suitable size as required to accurately represent each color and texture used on project. Prepare each sample using same tools and techniques for actual project application. Maintain and make available, at job site, approved samples.
- C. Manufacturer's Warranty: Submit sample copies of Manufacturer's Warranty indicating Single Source Responsibility for Stucco Base coat, finish coat and optional primer, level coat and reinforcing mesh as specified.

1.6 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Manufacturer: Shall have marketed stucco assemblies in United States for at least five years and shall have completed projects of same general scope and complexity.
 - 2. Applicator: Shall be experienced and competent in installation of stucco materials, and shall provide evidence of a minimum of 5 years experience in work similar to that required by this section.
- B. Functional Criteria:
 - 1. General: Stucco application shall be to vertical substrates or to substrates sloped for positive drainage according to ASTM C926. Substrates sloped for drainage shall have additional protection from weather exposure that might be harmful to coating performance.
 - 2. Performance Requirements of Coatings applied to Expanded polystyrene features: Must comply with ASTM E 2568 or ICC Acceptance Criteria AC 219 for EIFS.
- C. Substrate Conditions:
 - 1. Substrate materials and construction shall conform to the the building code having jurisdiction.
 - 2. Substrates shall be sound, dry and free of dust, dirt, laitance, efflorescence and other harmful contaminants.
 - 3. Substrate Dimensional Tolerances: Flat with $\frac{1}{4}$ in (6.4 mm) within any 4 ft (1.22 m) radius.
 - 4. Maximum deflection of substrate system under positive or negative design loads shall not exceed L/360 of span.
- D. Expansion and Control Joints: Continuous expansion and control joints shall be installed at locations in accordance with ASTM C1063 and ASTM C926.
 - 1. Substrate movement, and expansion and contraction of LaHabra Fastwall 300 Stucco and adjacent materials shall be taken into account in design of expansion joints, with proper consideration given to sealant properties, installation conditions, temperature range, coefficients of expansion of materials, joint width to depth ratios, and other material factors. Minimum width of expansion joints shall be as specified by the designer or shown on the project drawings.
 - 2. In accordance with ASTM C1063, expansion or control joints shall be installed in walls not more than 144 ft² (13.4 m²) in area, and not more than 100 ft² (9.3 m²) in area for all non-vertical applications. The distance between joints shall not exceed 18 ft (5.5 m) in either direction or a length-to-width ratio of 2- $\frac{1}{2}$ to 1.
 - 3. For direct application to concrete or masonry, stucco joints are required only at control/expansion joints in the underlying concrete or masonry

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver LaHabra Fastwall 300 Stucco Assembly products in original packaging with manufacturer's identification.
- B. Storage: Store LaHabra Fastwall 300 Stucco Assembly products products in dry location, off the ground, protected from moisture.

1.8 SITE / ENVIRONMENTAL CONDITIONS

- A. Substrate Temperature: Do not apply LaHabra Fastwall 300 Stucco Assembly products to substrates whose temperature are below 40° F (4° C) or contain frost or ice.

- B. Inclement Weather: Do not apply LaHabra Fiber-47 Fastwall Scratch and Brown during inclement weather, unless appropriate protection is employed.
- C. Sunlight Exposure: Avoid, when possible, installation of the LaHabra Fiber-47 Fastwall Scratch and Brown in direct sunlight. Application of LaHabra Finishes in direct sunlight in hot weather may adversely affect aesthetics.
- D. Do not apply stucco base coats or finishes if ambient temperature falls below 40° F (4 ° C) within 24 hours of application. Protect stucco from uneven and excessive evaporation during dry weather and strong blasts of dry air.
- E. Prior to installation, the wall shall be inspected for surface contamination, or other conditions that may adversely affect the performance of the LaHabra Fastwall 300 Stucco Assembly, and shall be free of residual moisture.

1.9 COORDINATION AND SCHEDULING:

- A. Coordination: Coordinate LaHabra Fastwall 300 Stucco Assembly installation with other construction operations.

1.10 WARRANTY

- A. Warranty: Upon request, at completion of installation, provide LaHabra Standard Limited Stucco Warranty.

EDITOR NOTE: SEE PAREX'S WARRANTY SCHEDULE FOR AVAILABLE LAHABRA FASTWALL 300 STUCCO ASSEMBLY WARRANTIES.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer: Parex USA, Inc., 4125 E. La Palma Ave., Suite 250, Anaheim, CA 92807
- B. Components: Obtain components manufactured by Parex USA of LaHabra Fastwall 300 Stucco Assembly from authorized distributors. No substitutions or additions of other materials are permitted without prior written permission from Parex USA for this project.

2.2 MATERIALS

- A. Stucco Materials:
 1. LaHabra Fiber-47 Fastwall Scratch and Brown
 - a. LaHabra Fiber-47 Fastwall Scratch and Brown Concentrate: A factory blended portland cement, fibers, hydrated lime and proprietary ingredients, cement scratch and brown coat mixed in the field with sand, conforming to ASTM C926.
 - b. LaHabra Fiber-47 Fastwall Scratch and Brown Sanded: A factory blend of portland cement, lime, fibers, proprietary additives and sand, scratch and brown coat, mixed in the field with water, conforming to ASTM C926.

EDITOR NOTE: MODIFY BELOW TO SUIT REQUIREMENTS. CHOOSE OPTIONAL LAHABRA ADMIX 100 FOR ENHANCED PERFORMANCE

- B. LaHabra Acrylic Bonder 100 percent acrylic admix emulsion for portland cement based products, to enhance curing, adhesion, freeze-thaw resistance and workability and/or as an acrylic polymer bonding agent for between a cementitious base and stucco finish coat.

EDITOR NOTE: MODIFY BELOW TO SUIT REQUIREMENTS. CHOOSE LEVELING AND REINFORCING COAT FOR ENHANCED CRACK RESISTANCE PERFORMANCE.

- C. Leveling and Reinforcing Coat (Required for LaHabra Fastwall 300 Krak-Shield Stucco Assembly): * NOT FOR USE ON EPS FOAM SHAPES
 1. Stucco Level Coat™: Copolymer based, factory blend of cement and proprietary ingredients requiring addition of water.
 2. Reinforcing Meshes:
 - a. Parex USA Standard Mesh: Weight 4.5 oz/yd² (153 g/m²) reinforcing mesh.??

STUCCO LEVEL COAT SHALL NOT BE USED AS AN ADHESIVE OR BASE COAT FOR EXPANDED POLYSTYRENE INSULATION BOARD SHAPES OR FEATURES

- D. Expanded Polystyrene Features over LaHabra Fastwall 300 Stucco
1. Adhesive and Base Coat
 - a. Lahabra Polybond: Modified portland cement adhesive and basecoat for exterior foam shapes, such as pop-outs, plant-ons, cornices and reveals mixed with water.
 2. Insulation Board
 - a. Produced and labeled under a third party quality program as required by applicable building code and produced by a manufacturer approved by Parex USA.
 - b. Shall conform to ASTM C578, ASTM E2430 Type I, and the Parex USA specification for Molded Expanded Polystyrene Insulation board.
 3. Reinforcing Mesh
 - a. Parex USA Standard Mesh: Weight 4.5 oz/yd² (153 g/m²) reinforcing mesh.

EDITOR NOTE: MODIFY BELOW TO SUIT REQUIREMENTS. CHOOSE PRIMER FOR EXTENDED WARRANTY – FOR USE WITH ACRYLIC OR ELASTOMERIC FINISHES OR COATINGS ONLY – NOT TO BE USED WITH CEMENTITIOUS FINISH COATS

- E. LaHabra Acrylic Primer: 100% acrylic based coating to prepare surfaces for LaHabra finishes.

EDITOR NOTE: MODIFY BELOW TO SUIT REQUIREMENTS. CHOOSE ONE FINISH TYPE CHOOSE PAREX OPTIMUM OR E-LASTIC FINISH FOR DIFFERENT LEVELS OF ENHANCED WARRANTY.

- F. LaHabra Finish:
1. Acrylic or Elastomeric
 - a. LaHabra Elastomeric Finish: Factory blended, 100 % acrylic polymer based elastomeric textured finish, integrally colored. Finish texture and color as selected by Project Designer
 - b. LaHabra Acrylic Finish: Factory blended, 100% acrylic polymer based finish, integrally colored. Finish texture and color as selected by Project Designer.
 2. Cementitious Finish (not for use with Stucco Level Coat)
 - a. Exterior Stucco Color Coat: blend of portland cement, hydrated lime, aggregates and additives available in 16/20 and 20/30 aggregates.
 - b. Sana Barbara Mission Finish: Smooth stucco finish coat.

2.3 RELATED MATERIALS AND ACCESSORIES

- A. General: LaHabra Fastwall 300 Stucco Assembly and its related materials shall conform to ASTM C926, this specification and LaHabra Product Data Sheets.
- B. Substrate Materials:
1. Substrate shall be gypsum sheathing, cement board, fiberboard, plywood, OSB, concrete, concrete masonry or other sheathing allowed by the application building code.
 2. The sheathing shall be in compliance with the building code having jurisdiction.
 3. Refer to Related Sections for project requirements.
- C. Water-Resistive Barriers:
1. For non-wood based sheathing shall be either:
 - a. 1 layer asphalt-saturated felt complying with ASTM D226 Type I or UUB 790a
 - b. Lath with appropriate paper backing.
 - c. Other recognized equivalent.

2. For wood based sheathing shall be either:
 - a. 2 layers of Grade D asphalt saturated Kraft building paper, or 1 layer of the Kraft building paper plus paper backed lath.
 - b. Grade D paper with a water resistance equal to or greater than 60 minutes, with an intervening nonwater-absorbing layer or drainage space.
 - c. Other recognized equivalent.
 3. For solid sheathing with foam plastic insulation installed over the water-resistive barrier shall be either:
 - a. Dupont Tyvek®, Stuccowrap® or DrainWrap™
 - b. Other sheet good Water resistive barrier, incorporating in itself a means of drainage, and maintaining a current ICC Evaluation Report
 4. Open Framing:
 - a. 1 layer Grade D asphalt saturated Kraft building paper.
 - b. 1 layer asphalt-saturated felt complying with ASTM D226 Type I.
 - c. Other recognized equivalent.
- D. Polystyrene Insulation(Type V Construction Only):
1. Over open framing: Tongue and Groove Expanded (EPS), or Extruded (XPS), having a minimum density of 1.5 lb/ft³ (21 kg/m³), thickness of 1 -1.5 in (25.4 - 38mm).
 2. Over sheathing: Expanded (EPS), or Extruded (XPS), having a nominal density of 1 lb/ft³ (14 kg/m³).

EDITOR NOTE: THE SELECTION OF AN APPROPRIATE TYPE OF MATERIAL FOR ACCESSORIES SHALL BE DETERMINED BY APPLICABLE SURROUNDING CLIMATIC AND ENVIRONMENTAL CONDITIONS SPECIFIC TO THE PROJECT LOCATION, SUCH AS SALT AIR, INDUSTRIAL POLLUTION, HIGH MOISTURE, OR HUMIDITY.

- E. Lath and Accessories: Conform to ASTM C847, ASTM C933, ASTM C1032 and ASTM C1063 and Appendix
1. Accessories: Manufacturer's standard steel products with minimum G60 galvanizing unless otherwise indicated as rigid polyvinyl chloride (PVC plastic) or zinc alloy

EDITOR NOTE: SELECT LATH TYPE AND WEIGHT.

2. Metal Plaster Bases: Minimum 17 gauge stucco netting, minimum 2.5 lb/yd² (1.4 kg/m²) or 3.4 lb/yd² (1.8 kg/m²) expanded metal diamond lath, or welded wire lath, furred in accordance with applicable codes and standards.
3. Weep Screeds: Foundation weep screed with minimum 3-1/2 inch vertical attachment flange.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify project site conditions under provisions of Section 01 00 00.
- B. Compliance: Comply with manufacturer's instructions for installation of LaHabra Fastwall 300 Stucco Assembly.

REMINDER: PAREX® ARMOURWALL 300 STUCCO ASSEMBLY MUST INSTALLED OVER A CODE COMPLYING WATER RESISTIVE BARRIER OR SOLID SURFACE OD MASONRY OR CONCRTE. WALL PERFORMANCE IS DEPENDENT UPON, AMONG OTHER FACTORS, PROPER FLASHING AND JOINT SEALING, AND ATTENTION TO PROPER FLASHING AND JOINT SEALANT DETAILS INDICATED ON DRAWINGS.

- C. Substrate Examination: Examine prior to LaHabra Fastwall 300 Stucco Assembly installation as follows:
 1. OSB substrates shall be gapped 1/8 in (3.2 mm) at all edges.
 2. Substrate shall be examined for soundness, and other harmful conditions.
 3. Substrate shall be free of dust, dirt, laitance, efflorescence, and other harmful contaminants.

4. Substrate construction in accordance with substrate material manufacturer's specifications and applicable building codes.
- D. Advise Contractor of discrepancies preventing installation of the LaHabra Fastwall 300 Stucco Assembly. Do not proceed with the LaHabra Fastwall 300 Stucco Assembly work until unsatisfactory conditions are corrected.
- E. Ensure that flashing has been installed per Specification Section 07 60 00 - Flashing and Sheet Metal.

3.2 PREPARATION

- A. Water Resistive Barrier:
 1. The water-resistive barrier is placed over all substrates except concrete or unpainted masonry. Painted (coated) CMU is to use a bond breaker such as asphalt paper and lath if the paint or coating cannot be removed.
 2. Installed according to manufacturers instructions.
- B. Expanded Polystyrene:
 1. Assemblies incorporating EPS must specify the Water resistive barrier in Section 2.3 C. 3.
 2. The boards described in Section 2.3 D. 1. are placed horizontally, with tongues faced upward, and are temporarily held in place with galvanized staples or roofing nails, on wood framing, and with self-tapping screws, on metal framing. Vertical butt joints must be staggered a minimum of one stud space from adjacent courses, and must occur directly over studs.
 3. Insulation Boards installed over a solid sheathing should be fastened to allow temporary placement until the lath is installed.
 4. The lath is applied tightly over the insulation board and fastened through the insulation board to wood studs or structural sheathing, Care must be taken to avoid overdriving fasteners.
- C. Wire Fabric Lath and Metal Lath: Install according to ASTM C1063 and Appendix and the Building Code.
- D. Concrete (Cast-in-Place): Provide a surface that is slightly scarified, water absorbent, straight and true to line and plane. Remove form ties and trim projecting concrete so it is even with the plane of the wall. Remove form release agents.
- E. Concrete Masonry Units: Remove projecting joint mortar so it is flush with the plane of the wall. Remove surface contaminants such as efflorescence, existing paint or any other bond inhibiting material by sandblasting, waterblasting, wire brushing, chipping or other appropriate means. Pre-moisten the surface with water just prior to placement of stucco, or apply one uniform coat of bonding agent by brush or roller.

3.3 MIXING

- A. Mix LaHabra proprietary products in accordance with manufacturer's instructions, including the applicable LaHabra Fastwall 300 Stucco Assembly Product Data Sheets.
- B. Admix – Lahabra Acrylic Bonder
 1. Mix up to 1 gallon per 90 pound bag of LaHabra Fiber-47 Fastwall Scratch and Brown Concentrate and up to 1 quart per 80 pound bag of LaHabra Fiber-47 Fastwall Scratch and Brown Sanded . Add after dry components and the majority of the water has been mixed. Mix no longer than required to provide a uniform mixture. DO NOT OVER-MIX. Overmixing entrains excessive amounts of air which weaken the material. Do not re-temper mixes over 20 minutes old.

3.4 APPLICATION

- A. General: LaHabra Fastwall 300 Stucco Assembly and its related materials shall conform to ASTM C926, this specification and LaHabra Product Data Sheets.
- B. Bonding Agent - Lahabra Acrylic Bonder
 1. Apply at the rate of 200 sq. ft. per gallon using a low-pressure sprayer brush- or roller. (application in direct sunlight may cause the product to dry too quickly)
 2. Stucco finishes or other cement products should be applied after Lahabra Acrylic Bonder becomes tacky up to 72 hours after application, but not while wet.

C. LaHabra Fastwall 300 Stucco Assembly:

1. Scratch Coat:
 - a. Apply scratch coat to a minimum thickness of $\frac{3}{8}$ in (10 mm), using sufficient trowel pressure to key stucco into lath or to create bond to substrates as applicable.
 - b. Prior to initial set, scratch horizontally to provide key for bond of brown coat.
 - c. Moist cure scratch coat with clean potable water for at least 48 hours in accordance with ASTM C926 and the building codes following initial application (unless brown coat is applied as soon as the scratch coat has achieved sufficient rigidity to support the brown coat).
2. Brown Coat:
 - a. Apply brown coat to a minimum thickness of $\frac{3}{8}$ in (10 mm), using sufficient trowel pressure to key stucco into scratch coat.
 - b. Rod surface to true plane and float to densify.
 - c. Trowel to smooth and uniform surface to receive acrylic polymer finish coat
 - d. Moist cure brown coat with clean potable water for at least 48 hours, in accordance with ASTM C926 and the building codes.

EDITOR NOTE: MODIFY BELOW TO SUIT REQUIREMENTS. CHOOSE LEVELING AND REINFORCING COAT FOR ENHANCED CRACK RESISTANCE PERFORMANCE * MAY NOT BE USED WITH CEMENT FINISHES

D. Leveling and Reinforcing Coat (LaHabra Fastwall 300 Stucco Assembly Krak-Shield Stucco Assembly):

1. Allow Scratch and Brown Stucco Base to set and moist cure a minimum of 48 hours and allow to dry before applying the leveling and reinforcing coat.
2. Using a stainless steel trowel, apply the Stucco Level Coat over the Scratch and Brown Stucco Base at a thickness of $\frac{1}{16} - \frac{3}{32}$ in. (1.6 – 2.4 mm).
3. Fully embed the reinforcing mesh, either Standard Mesh or Intermediate Mesh, into the wet Stucco Level Coat including diagonal strips at corners of openings and trowel smooth. If Standard Mesh is used, seams are overlapped 2- $\frac{1}{2}$ in (63 mm), and if the Intermediate Mesh is used, seams are butted and covered by strips of Detail mesh..
4. The LaHabra acrylic primers and finishes can be applied as soon as the Stucco Level Coat has cured, typically after 24 hours.

E. Finish Coat:

1. Remove surface contaminants such as dust or dirt without damaging the substrate.
2. Ambient and surface temperature must be 40°F (4°C) or higher during application and drying time. Supplemental heat and protection from precipitation must be provided as needed.
3. Use only on surfaces that are sound, clean, dry, unpainted, and free from any residue that might affect the ability of the finish to bond to the surface.

EDITOR NOTE: MODIFY BELOW TO SUIT REQUIREMENTS. CHOOSE ONE #4

4. LaHabra Fastwall 300 Stucco Assembly Krak-Shield Stucco Assembly
 - a. Allow Stucco Level coat to cure a minimum of 24 hours or longer as required by conditions. Examine the cured base coat for any irregularities.
 - b. Correct these irregularities to produce a flat surface.
 - c. Apply exterior wall acrylic finish in accordance with product datasheet and application instructions.

-OR-

4. A LaHabra Acrylic Primer and Finish Coat
 - a. After 48 hours of Moist curing, allow the LaHabra Fastwall 300 Stucco Base to air dry.
 - 1) Minimum of 3 days if applying a LaHabra Primer

-OR-

- 1) Minimum of 7 days before application of a LaHabra Acrylic or Elastomeric based Finish Coat
 - 2) Apply exterior wall acrylic finish in accordance with product datasheet and application instructions.
4. LaHabra Cement Finish Coat
- a. Bonding Agent - Lahabra Acrylic Bonder (if specified): Apply according to product datasheets and application instructions using a low-pressure sprayer brush- or roller. (application in direct sunlight may cause the product to dry too quickly).
 - b. Stucco finishes may be applied after Lahabra Acrylic Bonder becomes tacky up to 72 hours after application, but not while wet.
 - c. Apply Stucco Finish according to product datasheet and application instructions.
5. Protect LaHabra Finish Coats from inclement weather until completely dry and cured.
- F. Curing
1. LaHabra BasiC926 Armourwall Scratch and Brown: Moist Cure in accordance with ASTM C926 and the building codes.
 2. During periods of hot or dry weather conditions, a light spray (mist) of clean water is recommended over the stucco finish. dry and set the same day.
 3. Allow 28 days for curing.
 4. Air cure acrylic based and elastomeric finish coats only, do not wet cure.

3.5 CLEAN-UP

- A. Removal: Remove and legally dispose of Armourwall 300 Stucco component debris material from job site.

3.6 PROTECTION

- A. Provide protection of installed materials from water infiltration into or behind them.
- B. Provide protection of installed stucco from dust, dirt, precipitation, and freezing during installation.
- C. Provide protection of installed finish from dust, dirt, precipitation, freezing and continuous high humidity until fully cured and dry.
- D. Clean exposed surfaces using materials and methods recommended by the manufacturer of the material or product being cleaned. Remove and replace work that cannot be cleaned to the satisfaction of the Project Designer/Owner.

END OF SECTION

Disclaimer: This guide specification is intended for use by a qualified designer. The guide specification is not intended to be used verbatim as an actual specification without appropriate modifications for the specific use intended. The guide specification must be integrated into and coordinated with the procedures of each design firm, and the requirements of a specific project.

Corporate Office

Parex USA, Inc.
4125 E. La Palma Ave., Suite 250
Anaheim, CA 92807
(866) 516-0061
Tech Support: (800) 226-2424

Facilities

Riverside, CA
French Camp, CA
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