

CSI SECTION 09 25 13 Acrylic Plastering

SYSTEM OVERVIEW

This overview is provided as an explanatory resource for the designer and specifier and is not part of the specification that follows.

Parex Architectural Coatings and Finishes (ACF): Soffit is an exterior coating system for application to ASTM C 1177 compliant glass mat faced gypsum board or cement board on exterior soffits.

Where the soffit is considered a weather exposed surface in accordance with local building code, it may require a water resistive barrier above the sheathing.

ACF has four primary components.:

- 1) Cementitious acrylic basecoat, approximately 1/16" thick.*
- 2) Fiberglass reinforcing mesh embedded in the basecoat installed over additional strips of fiberglass mesh placed over cement board joints.*
- 3) Acrylic Primer (optional)*
- 4) Acrylic or elastomeric textured, integrally colored finish.*

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Installation of a cementitious acrylic basecoat, reinforcing mesh, [primer,] and finish installed on exterior soffits

1.2 RELATED SECTIONS

- A. Section 03 00 00 Concrete
- B. Section 07 90 00 Joint Protection
- C. Section 08 50 00 Windows

1.3 REFERENCES

- A. ASTM B117 Test Method for Salt Spray (Fog) Testing
- B. ASTM D2247 Practice for Testing Water Resistance of Coatings in 100 Percent Relative Humidity
- C. ASTM E84 Test Method for Surface Burning Characteristics of Building Materials
- D. ASTM E331 Test Method for Water Penetration by Uniform Static Air Pressure Difference
- E. ASTM E695 Method for Measuring Relative Resistance to Impact Loading
- F. ASTM E2485 Standard Test Method for Freeze/Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water Resistive Barrier Coatings
- G. ASTM E2486 Standard Test Method for Impact Resistance of Class PB and PI Exterior Insulation and Finish Systems (EIFS)
- H. ASTM G155 and G153 Accelerated Weathering for Exposure of Nonmetallic Materials

1.4 ASSEMBLY DESCRIPTION

- A. An exterior coating system consisting of basecoat with embedded reinforcing fabric mesh, [primer], and finish coat.
- B. Functional Criteria
 1. General:
 - a. This application is for soffits only.
 - b. Control joints shall be installed 32 ft. (9.75 m) on center maximum as per sheathing manufacturer's recommendations.
 - c. Building code conformance: The construction shall be acceptable for use under the building code in force in the jurisdiction of the project.

- d. Prevent the accumulation of water behind the finish system, by proper design and detailing of the soffit and related construction.
- 2. Performance Requirements
 - a. Shall meet the testing requirements of the Parex Product Performance Sheet.

1.5 SUBMITTALS

- A. 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.
- B. Manufacturer's Warranty: Submit sample copies of Manufacturer's Warranty indicating Single Source Responsibility

1.6 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Manufacturer: Shall have marketed EIFS assemblies in United States for at least ten years and shall have completed projects of same general scope and complexity.
 - 2. Applicator: Shall be experienced and competent in installation of EIFS materials, and shall provide evidence of a minimum of five years experience in work similar to that required by this section.
 - 3. Products manufactured under ISO 9001:2000 Quality System.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver products in original packaging with manufacturer's identification.
- B. Storage: Store materials in a cool, dry location, out of sunlight, protected from weather and other harmful environment, and at a temperature above 40°F (4.4°C) and below 110°F (43°C) in accordance with manufacturer's instructions.

1.8 PROJECT / SITE CONDITIONS

- A. Installation Ambient Air Temperature: Minimum of 40°F (4°C) and rising, and remain so for 24 hours thereafter.
- B. Substrate Temperature: Do not apply materials to substrates whose temperature are below 40 °F (4.4 °C) or contain frost or ice.
- C. Inclement Weather: Do not apply materials during inclement weather, unless appropriate protection is employed.
- D. Sunlight Exposure: Avoid, when possible, installation of the materials in direct sunlight. Application of finishes in direct sunlight in hot weather may adversely affect aesthetics.
- E. Parex materials shall not be applied if ambient temperature exceeds 120°F (49°C) or falls below 40°F (4.4°C) within 24 hours of application. Protect from uneven and excessive evaporation during hot, dry weather.
- F. Prior to installation, the substrate shall be inspected for surface contamination, or other defects that may adversely affect the performance of the ACF materials and shall be free of residual moisture.

1.9 COORDINATION AND SCHEDULING:

- A. Coordination: Coordinate Architectural Coatings and Finishes installation with other construction operations.

1.10 WARRANTY

- A. Warranty: Upon request, at completion of installation, provide manufacturer's Standard Limited Warranty.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer, Basis of Design: Parex USA, Inc., 4125 E. La Palma Ave., Suite 250, Anaheim, CA 92807; Contact: Susan Foster-Goodman, Architectural Sales & National Accounts Manager (714.319.3186 or 866.516.0061) or Technical Services (800.226-2424).
- B. Components: Obtain components of ACF from authorized distributors. No substitutions or additions of other materials are permitted without prior written permission from the manufacturer for this project.

2.2 MATERIALS

- A. Basecoat:
 - [1. 121 Basecoat: 100% acrylic polymer base, requiring the addition of portland cement.
 - [2. 121 Dry Basecoat: 100% acrylic copolymer based, factory blend of cement and proprietary ingredients requiring addition of water.
- B. Reinforcing Mesh (Impact resistance refers to installation of EPS trim):
 - [1. 355 Standard Mesh: Weight 4.5 oz. per sq. yd. (153 g/sq m); coated for protection against alkali. Standard reinforcement or for use with High Impact 358.14 Mesh, or Ultra High Impact 358.20 Mesh.
 - [2. 356 Short Detail Mesh: Reinforcing mesh used for backwrapping and details, and to embed in the Parex Base Coat & Adhesive 121 or 121 Dry.
 - [3. 352 Self Adhesive Detail Mesh: Reinforcing mesh used for complex details
- [C. Primer:
 - [1. Parex USA Primer: 100% acrylic based coating to prepare surfaces for Parex finishes.
 - [2. Variance VariPrime Sanded: 100% acrylic based coating to prepare surface for exposed aggregate specialty finishes.

EDITOR NOTE: MODIFY BELOW TO SUIT REQUIREMENTS. CHOOSE ONE FINISH TYPE.

- D. Finish:
 - [1. Parex DPR Optimum Finish: Factory blended, 100% acrylic polymer based finish, integrally colored. Finish type, texture and color as selected by Project Designer
 - [2. Parex DPR Standard Finish: Factory blended, 100% acrylic polymer based finish, integrally colored. Finish type, texture and color as selected by Project Designer
 - [3. Parex E-Lastic® Finish: Factory blended, 100% acrylic polymer based elastomeric textured finish, integrally colored. Finish type, texture and color as selected by Project Designer

EDITOR NOTE: MODIFY BELOW TO SUIT REQUIREMENTS. CHOOSE ONE FINISH TYPE, TEXTURE, & COLOR WITH ACCESSORY MATERIALS TO CREATE DESIRED EFFECT

- [4. Parex USA Variance [enter selected product]: Acrylic-based specialty finish. Finish type, texture and color as selected by Project Designer.
 - [a. Variance Antiquing Gel: a water-based, tinted, semi-transparent, acrylic emulsion for staining, sealing, and protecting concrete, masonry and other cementitious substrates. Use as required to achieve desired finish.

- E. Water: Clean, potable water
- F. Portland Cement: ASTM C150, Type I or Type I-II.

2.3 RELATED MATERIALS AND ACCESSORIES

- A. Water-Resistive barrier, if required by local code official
- B. Substrate Materials
 - [1. Dens-Glass Gold by Georgia-Pacific Corp. minimum ½" (12.7 mm) thick.
 - [2. Eterspan by Eternit, minimum ½" (12.7 mm) thick.
 - [3. Harditex by James Hardie Building Products, minimum ½" (12.7 mm) thick.
 - [4. PermaBase Sheathing by National Gypsum Co., minimum ½" (12.7 mm) thick.
 - [5. Concrete (poured or pre-cast).

[6. Other approved by Parex USA in writing prior to the project

C. Sealant System:

1. Sealant for perimeter seals around window and door frames and other wall penetrations shall be low modulus, designed for minimum 50% elongation and minimum 25% compression, and as selected by Architect.
2. Sealants shall conform to ASTM C920, Grade NS.
3. Perimeter seal joints shall be a minimum width of 1/2 in (12.7 mm).
4. Sealant backer rod shall be closed-cell polyethylene foam.
5. Apply sealant to tracks or basecoat.
6. Refer to Parex USA current Technical Bulletin for listing of sealants which have been tested and found to be compatible with Parex materials.
7. Color shall be as selected by Architect.
8. Joint design, surface preparation, and sealant primer shall be based on sealant manufacturer's recommendations and project conditions.

EDITOR NOTE: PART 3 EXECUTION BELOW INVOLVES ONSITE WORK AND SHOULD INCLUDE PROVISIONS FOR INCORPORATING MATERIALS AND PRODUCTS INTO PROJECT. TYPICALLY, "CONDITIONS OF THE CONTRACT" ESTABLISH RESPONSIBILITY FOR "MEANS, METHODS, TECHNIQUES, AND SAFETY" REQUIREMENTS OF CONSTRUCTION WITH CONTRACTOR. SPECIFICATIONS SHOULD AVOID CONFLICTS WITH THIS CONTRACTUAL PRINCIPLE.

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 ACF products.
- C. Substrate Examination: Examine prior to basecoat installation as follows:
 1. Substrate shall be free of dust, dirt, laitance, efflorescence, and other harmful contaminants.
 2. Substrate construction in accordance with substrate material manufacturer's specifications and applicable building codes.
 3. Maximum deflection of the substrate shall be limited to L/240. Screw heads shall be driven flush with face of sheathing substrate.
 4. Sheathing substrate shall be butted tightly at all joints.
- D. Advise Contractor of discrepancies preventing proper installation of the ACF materials. Do not proceed with work until unsatisfactory conditions are corrected.

3.2 PREPARATION

- A. Protection: Protect surrounding material surfaces and areas during installation of system.
- B. Clean surfaces thoroughly prior to installation.
- C. Prepare surfaces using the methods recommended by the Manufacturer for achieving the best result for the substrate under the project conditions.
- D. Water Resistive Barrier by others: Install in accordance with manufacturer's installation instructions.
- E. Install Sheathing in accordance with manufacturers installation instructions.

3.3 MIXING

- A. Mix proprietary products in accordance with Manufacturer's instructions.

3.4 APPLICATION

- A. General: Installation shall conform to this specification and Parex USA written instructions and drawing details.

- B. Base Coat: Apply base coat and fully embed mesh in base coat; include diagonal mesh patches at corners of openings and reinforcing mesh patches at joints of track sections.
- C. Apply primer if specified to base coat after drying.
- D. Finish Coat: Apply finish coat to match specified finish type, texture, and color. Do not apply finish coat to surfaces to receive sealant. Keep finish out of sealant joint gaps.

3.5 CLEAN-UP

- A. Removal: Remove and legally dispose of debris material from the job site.
- B. Clean ACF surfaces and work area of foreign materials resulting from application.

3.6 PROTECTION

- A. Provide protection of installed materials from water infiltration into or behind them.
- B. Provide protection of installed ACF 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 Architect/Owner.

END OF SECTION

Rev. May 2013

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. For additional assistance, contact Parex USA's Architectural Sales (866-516-0061) or Technical Support (800-226-2424).

Product Performance Sheet | Page 1

Architectural Coatings and Finishes

| Fire Performance | Method | ICC or ASTM Criteria | Results |
|--------------------------------|----------|---|---|
| Surface Burning Characteristic | ASTM E84 | Individual components shall each have a flame spread <25, and smoke developed < 450 | Flame Spread: 0 to 15 Smoke Developed: 0 to 15 |

| Strength | Method | ICC or ASTM Criteria | Results |
|------------------------------|------------|-------------------------|--|
| Flexural Strength | ASTM C203 | No Requirement | 60.6 psi (418 kPa) |
| Falling Ball Impact | ASTM D1037 | No Requirement | 92 to over 600 in-lbs |
| Creep Resistance of Adhesive | ASTM D2294 | No Requirement | 28 days 208 psf shear stress: no creep |
| Tensile Bond Strength | ASTM E2134 | Minimum 15 psi (103kPa) | Pass |

| Environmental Durability | Method | ICC or ASTM Criteria | Results |
|--------------------------|---------------------------------------|--|--------------------------|
| Abrasion Resistance | ASTM D968 | No cracking or loss of film at 528 quarts (500 L) of sand | Pass: 500 Liters |
| Accelerated Weathering | ASTM G153/ (ASTM G23) ASTM G154 | No deleterious effects* at 2000 hours when viewed under 5x magnification | Pass: 2000 Hours |
| Freeze/Thaw Resistance | ASTM E 2485 | No deleterious effects* at 10 cycles when viewed under 5x magnification | Pass: 60 cycles |
| Fungus Resistance | MIL STD 810B | No Requirement | Pass: 28 days- no growth |
| Mildew Resistance | ASTM D3273 | No growth supported during 28 day exposure period | Pass |
| Water Penetration | ASTM E331 | No water penetration beyond the plane of the base coat/EPS board interface after 15 minutes at 6.24 psf (299 Pa) | Pass |
| Moisture Resistance | ASTM D2247 | No deleterious effects at 14 day exposure | Pass |
| Salt Fog Resistance | ASTM B117 | No deleterious effects* at 300 hours | Pass: 500 hours |
| Wind Driven Rain | F.S. TT-C-555B | No Requirement | Pass: 24 hours |

**No deleterious effects: no cracking, checking, crazing, erosion, rusting, blistering.*

Where several tests on different materials are summarized, a range of values is shown. This summary has been prepared to provide quick but partial information on how certain combinations of Parex products perform during certain tests. It is not a complete description of the test procedures or of the results thereof. Copies of original test reports are available at no charge upon request. Please contact Parex USA's Architectural Sales (866-516-0061) or Technical Support Department (800-226-2424) if further information is required.