



# ACF for NuTech™ Specifications

## CSI SECTION 09 25 13

### 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.*

*El Rey Architectural Coatings and Finishes (ACF): NuTech™ is an exterior coating system for application to cement board wall coverings and soffits.*

*A water-resistive barrier is required behind the cement board and walls require a continuous substrate.*

*ACF NuTech 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.*

*A separate means of drainage is recommended and is listed as optional in the specification. For Increased warranty see specifications for the ACF NuTech WaterMaster assembly which includes Parex USA WeatherSeal water-resistive barrier coating and a means of drainage.*

*ACF NuTech is for coating cement board on above grade vertical walls and soffits of buildings up to three stories. A water-resistive barrier and sheathing are required behind the cement board on vertical surfaces and may be required under the cement board on soffits depending on the local code requirements. Under some environmental conditions, thermal conduction of fasteners and framing can become evident in the finish as "telegraphing" or "ghosting", and efflorescence can occur from hydration products of the cement. These are natural phenomena which occur and are not indicative of product performance. Also, planar irregularities in framing can be reflected as planar irregularities in the wall surface. Coarser finish textures and interruptions of plane by projecting decorative elements can make such irregularities less evident. As with other cementitious materials, minor cracking may occur, but can be reduced by control joints, just as in conventional Portland cement plaster. Also, Efflorescence, a powdery whitish deposit, can occur from hydration products in the cement board.*

*Fire-resistance rated walls of up to 4 hours are listed in UL Design No. V438. The Design covers noncombustible, nonbearing walls with PermaBase® cement board. Fire-resistance rated walls of up to 2 hours are listed in UL Design No. BXUV.U474. The design covers noncombustible, nonbearing walls with Durock® cement board.*

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Installation of a cementitious acrylic basecoat, reinforcing mesh, [primer,] and finish installed on cement board or other approved substrates.

##### 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 Material

### 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. Height is limited to three stories without prior project-specific approval by Parex USA, Inc. Efflorescence can occur from hydration products in the cement board. Under some environmental conditions, thermal conduction of fasteners and framing can become evident in the finish as “telegraphing” or “ghosting” and efflorescence can occur from hydration products of the cement. These are natural phenomena which occur and are not indicative of product performance. Planar irregularities in framing will be reflected in planar irregularities in the wall surface and minor cracking of the finish can occur.
    - b. Substrate wall design deflection shall be limited to no greater than L/360.
    - c. The coating system and cement board sheathing do not form a weather barrier. A continuous water-resistive barrier, installed to the exterior of the sheathing that is behind the cement board, and flashed to shed water to the exterior, is required.
    - d. Openings in the wall must be flashed to the water-resistive barrier or to the exterior.
    - e. Building code conformance: The construction shall be acceptable for use under the building code in force in the jurisdiction of the project.
    - f. Install expansion joints at floor lines of wood framed construction, substrate changes and substrate expansion joints. Install vertical cement board control joints not more than 50 feet (15.24 m) apart. The cement board on each side of vertical joints shall be backed by a framing stud.
    - g. Pitch of sloped surfaces shall be 6/12 minimum. The maximum horizontal run of sloped surface shall be 8 inches (203 mm). For larger dimensions, consult Parex USA Technical Services.
  - 2. Performance Requirements
    - a. Shall meet the testing requirements of the Product Performance Sheet.

EDITOR NOTE: COORDINATE BELOW IMPACT RESISTANCE CLASSIFICATION REQUIREMENTS ACCORDING TO ASTM E 2486 - STANDARD TEST METHOD FOR IMPACT RESISTANCE OF CLASS PB AND PI EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)

- 3. Impact Resistance Classification: For EPS trim installed in addition to El Rey NuTech shall be classified in accordance with EIMA classification and impact ranges as follows:
  - a. Standard Impact Resistance, 25-49 in-lbs (2.8 – 5.6 J) Impact Range
  - b. Medium Impact Resistance, 50-89 in-lbs (5.7–10.1 J) Impact Range
  - c. High Impact Resistance, 90-150 in-lbs (10.2–17.0 J) Impact Range
  - d. Ultra High Impact Resistance, >150 in-lbs (> 17.0 J) Impact Range

### 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°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°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. Materials shall not be applied if ambient temperature exceeds 120°F (49°C) or falls below 40°F (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 (800.224.2626).

#### B. Components: Obtain components of NuTech 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. Insul-Bond P 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. Parexc USA 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 Parexc USA High Impact 358.14 Mesh, or Parexc USA Ultra High Impact 358.20 Mesh.
- [2. Parexc USA 356 Short Detail Mesh: Reinforcing mesh used for backwrapping and details, and to embed in the Base Coat & Adhesive.
- [3. Parexc USA 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 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. Perma-Flex Finish: Factory blended, 100% acrylic polymer based finish, integrally colored. Finish type, texture and color as selected by Project Designer
- [2. Perma-Flex 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: ADD COLORFAST PIGMENTS TO ANY PRE-TINTED ACRYLIC OR ELASTOMERIC FINISH SELECTION ABOVE FOR SATURATED/BRIGHTER AND INCREASED FADE RESISTANCE AND TO QUALIFY FOR A COLOR FADE WARRANTY.

- [a. Parex USA ColorFast Pigments System: Fade resistant pigment system offering superior fade resistance; factory tinted only; used-with any Parex USA acrylic or elastomeric finish or coating.

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

- [3. 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.

## 2.2 RELATED MATERIALS AND ACCESSORIES

A. Substrate Materials

- [1. Sheathing shall be installed in accordance with its industry standards and applicable building code.
- [2. Gypsum Sheathing shall conform to ASTM C79, C1396, or C1177 glass mat gypsum sheathing, minimum thickness 1/2" (13 mm).
- [3. Plywood shall be not less than 15/32" (11 mm) thick, PS-1 Exposure 1 or Exterior grade.
- [4. Oriented strand board (OSB) shall be not less than 7/16" thick (11.1 mm), PS-2 Exposure 1.
- [5. For wood-based sheathing (Plywood and OSB), comply with APA-The Engineered Wood Association spacing recommendations for edge and end joints. Gap wood sheathing panels minimum 1/8".
- [6. Sheathing shall be protected from weather before, during and after application of materials.

B. Flashing: Refer to Flashing: Refer to Division 07 Flashing Section for flashing materials.

C. Water-resistive barrier:

- [1. Parex USA WeatherSeal water resistive barrier coating
  - [a. Parex USA WeatherSeal™ Spray & Roll-On water resistive barrier coating. Two coats may be required on plywood and OSB.
  - [b. Parex USA WeatherSeal™ Trowel-On water resistive barrier coating. Two coats may be required on plywood and OSB
  - [c. Parex USA 396 Sheathing Tape: Non-woven synthetic fiber tape to reinforce Parex USA WeatherSeal roll on water-resistive barrier at sheathing board joints, into rough openings and other terminations into dissimilar materials available in 4 in, 6 in and 9 in widths
- [2. DuPont Tyvek® StuccoWrap® or DrainWrap
- [3. Code compliant water resistive barrier, minimum type 15 felt or kraft building paper, or equal.

D. Optional Drainage plane

- [1. Dow Weathermate Sill Seal: Flexible polyethylene foam gasketing strip
- [2. Drainage Mat: three-dimensional open structure drainage mat

E. Cement Board

- [1. Minimum ½ inch (13 mm) thick PermaBase® Brand Cement Board complying with ASTM C1325
- [2. Minimum ½ inch (13 mm) thick Durock Brand Next Gen® Cement Board complying with ASTM C1325
- [3. Other approved by manufacturer in writing prior to the project.

- F. Accessories
  - 1. Casing beads, expansion and control joints of exterior grade, rigid PVC in accordance with ASTM D1784 and ASTM D4216, as manufactured by Vinyl Corp. or Plastic Components, Inc.
  - 2. Adhesive for setting vinyl trim before mechanical attachment through the cement board.
- G. 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 USA 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.
  - 4. Substrate shall be cured concrete (28 days minimum).
  - 5. Substrate shall have no irregularities greater than 1/4" (6.4 mm), and shall be sound and free of foreign substances, including paint, bond breakers, form oils, laitance, scaling and flaking.
  - 6. Unsatisfactory conditions shall be corrected before the application of the coatings.
  - 7. If using Parex USA WeatherSeal, painted surfaces shall have paint removed to achieve a substrate with 90% or more of the surface free of paint.
  - 8. Sanding surfaces shall be eliminated mechanically, then washed with clear water.
  - 9. Remove efflorescence using mechanical removal and/or a diluted acid solution followed by complete rinsing.
  - 10. Concrete surfaces shall be level and free of voids over 1/8" (3 mm) across. Glossy surfaces shall be dulled by chemical or mechanical means. Thoroughly remove all residues.
- D. Advise Contractor of discrepancies preventing proper installation of the NuTech 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.

### **3.3 MIXING**

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

### 3.4 APPLICATION

#### A. Water Resistive Barrier

##### [1. Parex USA WeatherSeal

- a. Flash all rough openings with WeatherSeal air and water-resistive barrier coating and embedded 396 Sheathing Tape.
- b. Apply Parex USA WeatherSeal air and water-resistive barrier coating to the surface of the appropriate substrate (2 coats may be required over plywood and OSB). Ensure that the WeatherSeal laps onto all tracks and flashing to allow for any water to be drained into the tracks/flashing.

##### [2. Water resistive barrier by others: Install in accordance with manufacturer's installation instructions.

##### [3. Stuccowrap or Drainwrap

- a. Install in accordance with manufacturer's installation instructions.
- b. Protect the sheathing behind the cement board with StuccoWrap® or DrainWrap® and flash rough openings and any sloped surfaces in accordance with the flashing manufacturer's written instructions and the building code requirements.
- c. Flash all sloped surfaces, windows, doors, louvers and other openings, using appropriate flashing material and installation procedures, to ensure a weather tight seal with the StuccoWrap or DrainWrap water-resistive barrier

#### [B. Optional Drainage

##### [1. Weathermate Sill Seal strips

- a. Place Weathermate Sill Seal strips over the studs.
- b. Dow Weathermate Sill Seal foam strips the screws must be 1-7/8" to accommodate the thickness of the Sill Seal

##### [2. Drainage Mat: Temporary install over entire wall until Cement board is attached.

#### C. Cement Board

1. The cement board shall be installed in accordance with this specification and the cement board manufacturer's written instructions.
2. Cement board shall be fastened to framing by corrosion resistant steel screws.
3. Locate screws 8" (20.4 m) maximum on center along framing members or closer as required by design loads. Screws at board edges shall be placed 3/8" (0.95 m) in from the edge. Fastener heads are to be driven flush with the face of the cement board.
4. All vertical joints of the cement board shall be staggered in a running bond pattern and terminate on framing. All cement board joints shall be butted together.
5. Offset horizontal cement board joints a minimum of 12" (300 mm) from horizontal sheathing joints. Offset vertical cement board joints a minimum of one stud space from vertical sheathing joints.
6. Offset cement board joints a minimum of 8" (203 m) from the corners of openings by "L" cutting the cement board around corners of openings
7. Attach vinyl stop beads at NuTech perimeters with fasteners and adhesive.

#### D. Joint Treatment:

1. Embed Short Detail Fiberglass Mesh 356 or 352 Self Adhesive Detail Mesh in any El Rey Basecoat & Adhesive centered over all cement board joints, inside and outside corners, and as diagonal "butterflies" at corners of openings. Optional: Embed Corner Mesh 357 and Basecoat & Adhesive in at outside corners in place of Short Detail Mesh.
2. Insulation Board Trim and Features: Where detailed, apply basecoat and adhesive to the entire back surface of the insulation board with a notched trowel. Press and slide insulation board into place for continuous adhesion.
3. Using a stainless steel trowel, apply basecoat approximately 1/16" (1.6 mm) thick to the entire cement board and insulation board exposed surfaces, including previously meshed joints and corners. Lap mesh joints 2 1/2" (64 mm) minimum.
4. Apply diagonal mesh "butterflies" to corners of insulation board bands that surround openings. Embed Standard Mesh 355 into the wet basecoat on the entire basecoated surface. Apply additional basecoat if required to ensure mesh is completely embedded and to achieve a final nominal thickness of 1/16" (1.6 mm). The mesh shall not be visible and shall show no texture.
5. Where indicated on the drawings, install Mesh 358.10 for additional impact resistance. Follow the Product Data Sheet application details for mesh installation.
6. After the basecoat has dried a minimum of 24 hours or longer as required by conditions, the surface shall be examined for any irregularities. The basecoat shall have a smooth and continuous texture prior to proceeding to primer and finish coat application. Correct any irregularities to produce a flat surface.

- E. Basecoat, Full Field Application:
  - 1. 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. Apply multiple layers of base coat and mesh where required for specified impact resistance classification.
- F. Bond supplemental EPS shapes as indicated on the drawings. Bond shapes to EPS or to dry reinforced basecoat using any El Rey Base Coat & Adhesive as an adhesive. Allow 24 hours to dry.
- G. Apply primer to basecoat after drying. Primer may be omitted if it is not required by the Manufacturer's product data sheets for the specified finish coat or otherwise specified for the project.
- H. 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. June 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 - NuTech

Parex USA WeatherSeal (if applicable)	Method	ICC and ASTM E2570 Criteria	Results
Accelerated Weathering / Aging	AC 212	25 Cycles followed by Hydrostatic Pressure Test: No water penetration	Pass: No water penetration
Air Infiltration	ASTM E2178	Calculated flow Rate at 75 Pa (1.57 lb/ft <sup>2</sup> , 0.3 in H <sub>2</sub> O) = < 0.02 L/m <sup>2</sup> *s (< 0.004 cfm/ft <sup>2</sup> )	< .00001 L/m <sup>2</sup> *s (0.00001 cfm/ft <sup>2</sup> ) at 75 Pa (1.57 lb/ft <sup>2</sup> , 0.3 in H <sub>2</sub> O)
Air Leakage of Air Barrier Assemblies	ASTM E2357	Pass < 0.2 L / s·m <sup>2</sup> at 75 Pa) (< 0.04 cfm / ft <sup>2</sup> at 1.57 psf)	Pass
Air Leakage	ASTM E283	No Criteria	< 0.004 cfm/ft <sup>2</sup>
Elongation	ASTM D412	No Criteria	360%
Flexibility	ASTM D522	No Criteria	No Cracking at 1/8" (3 mm)
Freeze-Thaw Resistance	ASTM E 2485	10 Cycles	Pass: No Deleterious Effects
Hydrostatic Pressure Test	AATCC 127 (Water Column)	Resist 21.6 in (55 cm) water for 5 hours before and after aging	No water penetration before and after aging
Nail Seal ability, Head of Water	ASTM D1970	No Criteria	Pass
Pull off Strength	ASTM D 4541	No Water Penetration	Pass: No water penetration
Racking	ASTM E72	Deflection at 1/8 in (3.2 mm)	Pass: No cracking at field, joints or flashing connection
Restrained Environmental	ICC ES AC 212 / ASTM E2570	5 Cycles of wetting and drying	Pass: No cracking at field, joints or flashing connection
Structural Loading	ASTM E1233 Procedure A	10 Cycles @ 80% design load	Pass: No cracking at field, joints or flashing connection
Surface Burning Characteristics	ASTM E84	Flame Spread <25 Smoke Developed <450	Flame Spread =0 Smoke Developed =0
Tensile Bond Strength	ASTM E 2134/ ASTM C 297	Minimum 15 psi (104 kPa)	Pass: All listed substrates and flashing materials
Water Resistance	ASTM D 2247	14 Days	Pass: No Deleterious Effects.
Water Penetration	ASTM E331	2.86 psf (137 Pa) for 15 minutes	Pass: 25.4 psf (1216 Pa) for 165 minutes
Water Penetration	ASTM E331	Tested after Structural Loading, Racking and Restrained Environmental Cycling at 2.86 psf (137 Pa) for 15 minutes	No Water Penetration
Water Vapor Transmission	ASTM E96		12 Perms (Spray & Roll-On) 6 Perms (Trowel-On)



<b>Fire Performance</b>	<b>Method</b>	<b>ICC or ASTM Criteria</b>	<b>Results</b>
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

<b>Strength</b>	<b>Method</b>	<b>ICC or ASTM Criteria</b>	<b>Results</b>
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

<b>Environmental Durability</b>	<b>Method</b>	<b>ICC or ASTM Criteria</b>	<b>Results</b>
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 USA 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.*

## NOTES

## NOTES



# ACF NuTech™ Specifications

CSI SECTION 09 25 13



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