

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION EC-28

Effective March 1, 2003  
Revised July 1, 2005

*The following products have been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation 3 years after the effective date.*

*This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.*

*This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.*

Vinyl siding products manufactured by

**Roytec Vinyl – a division of Royal Group Technologies, Inc.**  
**91 Royal Group Crescent**  
**Woodbridge, ON, Canada L4H 1X9**  
**Telephone: (905) 851-7756**

**Royalguard Vinyl – a division of Royal Group Technologies, Inc.**  
**850 Highway 77 East/P.O. Box 149**  
**Newbern, TN 38059**  
**Telephone (731) 627-2775**

and distributed by **Royal Building Products** and **Amcraft Building Products** are accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

## PRODUCT DESCRIPTION

This product evaluation applies to the following products:

### Horizontal Siding

#### Royal Building Products

Royal Crest Double 5" Designer	Architectural Series Triple 3" Bevel
Royal Crest Double 5" Bevel	Architectural Series Double 4.5" Bevel
Royal Crest Double 4" Bevel	Architectural Series Double 4" Designer
Royal Crest Double 4" Designer	Journeyman Double 5" Designer
Royal Crest 6.5" Colonial Bead Bevel	Journeyman Double 4" Bevel
8" Designer Beaded Panel	Journeyman Double 4" Designer
Royal Crest 8" Bevel	Residential Triple 3"
Cedar Series Double 4" Bevel	Residential Double 4.5" Bevel
Cedar Series Double 4.5" Bevel	Residential Double 4.5" Designer
Cedar Series Double 4.5" Designer	Grandform Double 4" Bevel
Royal Woodland Double 4.5" Bevel	Grandform Double 4" Designer
Royal Woodland Double 4.5" Designer	Grandform Double 4.5" Designer

### Horizontal Siding (Continued)

#### Amcraft Building Products

Ultra Double 5" Designer  
Ultra Double 5" Bevel  
Ultra Double 4" Bevel  
Ultra Double 4" Designer  
Timber Select Triple 3" Bevel  
Timber Select Double 4" Bevel  
Timber Select Double 4.5" Designer

Thunder Bay Double 4.5" Bevel  
Thunder Bay Double 4.5" Designer  
Regency Double 5" Designer  
Williamsburg 6.5" Colonial Beaded  
ProGuard Double 4" Bevel  
ProGuard Double 4.5" Designer  
River Canyon Double 4.5" Bevel  
River Canyon Double 4.5" Designer

### Vertical/Soffit

#### Royal Building Products

Royal Crest Double 4" Vertical  
Journeyman Double 5" Vertical  
Soffit Triple 4" Soffit  
Vinylpro Soffit Triple 4" Soffit  
Cedar Series Double 4" Vertical  
Cedar Series Soffit Double 4" Soffit

Royal Soffit Triple 4" Soffit  
Royal Soffit Double 5" Soffit  
Royal Soffit 8" Designer Beaded Soffit  
Royal Soffit Double 5" Heavy Gauge  
Architectural Series 7" Board & Batten Vertical  
Royal Colonial Beaded  
Royal Board & Batten

#### Amcraft Building Products

Ultra Triple 4" Soffit  
ProGuard Triple 4" Soffit

## INSTALLATION INSTRUCTIONS

### General Installation Requirements:

All fasteners shall be corrosion resistant as specified in the IRC and the IBC. Fasteners shall be driven in the center of the nailing slot, leaving a minimum  $\frac{1}{32}$  inch space between the nail head and the vinyl siding.

As a minimum, either the interior or exterior surface of the wall shall be sheathed with either structural or non-structural materials. If non-structural materials (such as foam or fiberboard) are used on the exterior side of the wall, then the length of the fasteners used to secure the vinyl siding to the framing shall be increased by the thickness of the non-structural material.

Apply the starter strip with fasteners spaced a maximum of 8 inches on center. When butting starter strips, keep them at least  $\frac{3}{8}$  inch apart to allow for expansion. The fasteners for the corner posts shall be spaced a maximum of 8 inches on center. Attach the J-channels to the framing members with fasteners spaced a maximum of 10 inches on center.

Panel ends should be overlapped approximately  $\frac{1}{2}$  of the factory pre-notched end. Panel ends should be staggered 3 feet from adjacent courses.

**Soffits:** Soffit material may be installed without a listing in this product evaluation report. If the soffit is perforated (the soffit must be perforated along its entire length) or if the overhang is 24 inches in width or less, then the soffit material may be installed in accordance with the manufacturer's installation instructions. All other soffit installations shall be in accordance with a listing in this product evaluation report.

**Wind Resistant Assemblies:**

**Assembly No. 1**

**Horizontal Siding - Fasteners Penetrating into Studs**

**Design pressure:** -45 psf

**Minimum thickness:** 0.042 inches

**Fasteners:** 1 ½" long corrosion resistant roofing nails (⅜" diameter head, ⅛" shank diameter)

**The following Amcraft Building Products are applicable:** Proguard (Double 4" Bevel, Double 4.5" Designer).

**Installation:** Wall studs shall be minimum Stud or No. 3 grade SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall framing with fasteners spaced a maximum of 16 inches on center.

**Assembly No. 2**

**Horizontal Siding - Fasteners Penetrating into Studs**

**Design pressure:** -50 psf

**Minimum thickness:** 0.040 inches

**Fasteners:** 1 ½" long corrosion resistant roofing nails (⅜" diameter head, ⅛" shank diameter)

**The following Royal Building Products are applicable:** Royal Crest (Double 5" Bevel, Double 5" Designer, Double 4" Bevel, Double 4" Designer, 6.5" Colonial Bead Bevel, 8" Designer Beaded Panel, 8" Bevel); Grandform (Double 4" Bevel, Double 4" Designer, Double 4.5" Designer).

**The following Amcraft Building Products are applicable:** Ultra (Double 5 Bevel).

**Installation:** Wall studs shall be minimum Stud or No. 3 grade SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall framing with fasteners spaced a maximum of 16 inches on center.

**Assembly No. 3**

**Horizontal Siding - Fasteners Penetrating into Studs**

**Design pressure:** -55 psf

**Minimum thickness:** 0.044 inches

**Fasteners:** 1 ½" long corrosion resistant roofing nails (⅜" diameter head, ⅛" shank diameter)

**The following Royal Building Products are applicable:** Cedar Series (Double 4" Bevel, Double 4.5" Bevel, Double 4.5" Designer).

**Installation:** Wall studs shall be minimum Stud or No. 3 grade SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall framing with fasteners spaced a maximum of 16 inches on center.

**Assembly No. 4**

**Horizontal Siding - Fasteners Penetrating into Studs**

**Design pressure:** -67 psf

**Nominal thickness:** 0.042 inches

**Fasteners:** 1 ½" long corrosion resistant roofing nails (⅜" diameter head, ⅛" shank diameter)

**The following Royal Building Products are applicable:** Residential (Triple 3", Double 4.5" Bevel, Double 4.5" Designer).

**Installation:** Wall studs shall be minimum Stud or No. 3 grade SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall framing with fasteners spaced a maximum of 16 inches on center.

### Assembly No. 5

#### Horizontal Siding - Fasteners Penetrating into Studs

**Design pressure:** -68 psf

**Minimum thickness:** 0.042 inches

**Fasteners:** 1 ½" long corrosion resistant roofing nails (⅜" diameter head, ⅛" shank diameter)

**The following Amcraft Building Products are applicable:** Ultra (Double 5" Designer, Double 4" Bevel, Double 4" Designer).

**Installation:** Wall studs shall be minimum Stud or No. 3 grade SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall framing with fasteners spaced a maximum of 16 inches on center.

### Assembly No. 6

#### Horizontal Siding - Fasteners Penetrating into Studs

**Design pressure:** -72 psf

**Minimum thickness:** 0.040 inches

**Fasteners:** 1 ½" long corrosion resistant roofing nails (⅜" diameter head, ⅛" shank diameter)

**The following Amcraft Building Products are applicable:** Timber Select (Triple 3" Bevel, Double 4" Bevel, Double 4.5" Designer).

**Installation:** Wall studs shall be minimum Stud or No. 3 grade SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall framing with fasteners spaced a maximum of 16 inches on center.

### Assembly No. 7

#### Horizontal Siding - Fasteners Penetrating into Studs

**Design pressure:** -80 psf

**Minimum thickness:** 0.044 inches

**Fasteners:** 1 ½" long corrosion resistant roofing nails (⅜" diameter head, ⅛" shank diameter)

**The following Amcraft Building Products are applicable:** River Canyon (Double 4.5" Bevel, Double 4.5" Designer).

**Installation:** Wall studs shall be minimum Stud or No. 3 grade SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall framing with fasteners spaced a maximum of 16 inches on center.

### Assembly No. 8

#### Horizontal Siding - Fasteners Penetrating into Studs

**Design pressure:** -81 psf

**Minimum thickness:** 0.046 inches

**Fasteners:** 1 ½" long corrosion resistant roofing nails (⅜" diameter head, ⅛" shank diameter)

**The following Royal Building Products are applicable:** Royal Woodland (Double 4.5 Bevel, Double 4.5 Designer).

**The following Amcraft Building Products are applicable:** Thunder Bay (Double 4.5 Bevel, Double 4.5 Designer).

**Installation:** Wall studs shall be minimum Stud or No. 3 grade SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall framing with fasteners spaced a maximum of 16 inches on center.

### Assembly No. 9

#### Horizontal Siding - Fasteners Penetrating into Studs

**Design pressure:** -82 psf

**Minimum thickness:** 0.044 inches

**Fasteners:** 1 ½" long corrosion resistant roofing nails (⅜" diameter head, ⅛" shank diameter)

**The following Royal Building Products are applicable:** Journeymen (Double 5" Designer, Double 4" Bevel, Double 4" Designer).

**The following Amcraft Building Products are applicable:** Regency Double 5" Designer; Williamsburg 6.5" Colonial Beaded.

**Installation:** Wall studs shall be minimum Stud or No. 3 grade SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall framing with fasteners spaced a maximum of 16 inches on center.

### Assembly No. 10

#### Horizontal Siding - Fasteners Penetrating into Studs

**Design pressure:** -85 psf

**Minimum thickness:** 0.050 inches

**Fasteners:** 1 ½" long corrosion resistant roofing nails (⅜" diameter head, ⅛" shank diameter)

**The following Royal Building Products are applicable:** Architectural Series (Triple 3" Bevel, Double 4.5" Bevel, Double 4" Designer).

**Installation:** Wall studs shall be minimum Stud or No. 3 grade SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall framing with fasteners spaced a maximum of 16 inches on center.

### Assembly No. 11

#### Vertical Siding/Soffit - Fasteners Penetrating into Sheathing

**Design pressure:** -65 psf

**Minimum thickness:** 0.040 inches

**Fasteners:** 1 ½" long corrosion resistant roofing nails (⅜" diameter head, ⅛" shank diameter)

**The following Royal Building Products are applicable:** Royal Crest Double 4" Vertical; Journeymen Double 5" Vertical; Soffit Triple 4" Soffit; Vinylpro Soffit Triple 4" Soffit; Royal Soffit Triple 4" Soffit; Royal Soffit Double 5" Soffit; Royal Soffit 8" Designer Beaded Soffit; Royal Soffit Double 5" Heavy Gauge; Cedar Series Double 4" Vertical; Cedar Series Soffit Double 4" Soffit; Architectural Series 7" Board & Batten Vertical; Royal Colonial Beaded Vertical; Royal Board & Batten Vertical.

**The following Amcraft Building Products are applicable:** Ultra Triple 4" Soffit; Proguard Triple 4" Soffit.

**Installation:** Framing members shall be minimum 2x4 Stud or No. 3 grade SPF lumber. The framing members shall be spaced a maximum of 16 inches on center.

Vertical vinyl siding shall be installed over minimum ½ inch thick structural sheathing. The vinyl siding shall be fastened to the sheathing at 12 inches on center.

Soffit material may be installed over either minimum ½ inch thick structural sheathing or nominal one-inch thick spaced boards. If spaced boards are used, then the boards shall be a minimum of 2 inches wide. The boards shall be fastened to each framing member they cross with two 8d nails. The boards shall be spaced a maximum of 12 inches on center. The vinyl siding shall be fastened to the sheathing or boards at 12 inches on center.

**Note:** The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC) and the International Building Code (IBC).