PVC Railings

SECTION 062020

RoyalGuard™ Exterior PVC Railings

Exterior PVC Railings
Architectural Specifications

SECTION 062020

EXTERIOR PVC

RAILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and other Contract Documents, listed in the agreement between the Owner and Contractor, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Exterior PVC railings.

2. Finishing of PVC railings.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials, dimensions, profiles, and colors and include construction and application details.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

C. Samples for Initial Selection: For each type of product involving selection of colors, profiles, or textures.

D. Samples for Verification:

1. For cellular PVC railing components, with half of exposed surface finished; 50 sq. in.

E. Delegated-Design Submittal: For railing systems, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 INFORMATIONAL SUBMITTALS

A. Product Catalog

B. Warranties: Provide sample warranties.

1.5 QUALITY ASSURANCE

A. Engineer PVC Railing System to meet design loads in accordance with local building codes.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store materials flat with spacers between bundles to provide air circulation. Protect materials with waterproof covering.

B. Do not store packaging materials in direct sunlight to prevent heat buildup.

1.7 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecast weather conditions permit work to be performed.

B. Do not install PVC materials that are damaged.

1.8 WARRANTY

A. Manufacturer's Warranty for Cellular PVC Railings Systems: Manufacturer agrees to replace components that fails due to defects in manufacturing within specified warranty period.

1. Warranty Period: Limited Lifetime Warranty. Refer to manufacturer's website for details.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Royal Corinthian; 603 Fenton Lane, West Chicago, IL 60185; Tel: (888)265-8661.

2.2 CLASSIC EXTRUDED RAIL SYSTEM

A. Cellular PVC: Extruded, expanded PVC with a small-cell microstructure, recommended by manufacturer for exterior use, made from UV- and heat-stabilized, rigid material.

1. Basis of Design Product: Subject to compliance with requirements, provide the following: Royal Corinthian; Classic Extruded Rail System.

B. Rail Section Length: [6] [8] [10] [12] ft. lengths for level and radius rail runs. [6] [8] [10] ft. lengths for stairway applications.

C. Rail Section Height: [36] [42] inches.

D. Top Rail Cap: [Model PVC3814P (Peaked cap top rail)]. 1-3/8 inch high by 3-3/4 inch wide extruded rigid cellular PVC contoured rail profile. Optional [Mahogany wood Top Rail Cap or other species of wood]

E. Top Rail Base: 1-3/8 inch high by 2-3/4 inch wide extruded rigid cellular PVC contoured rail profile.

F. Bottom Rail: 1-3/8 inch high by 2-3/4 inch wide extruded rigid cellular PVC contoured rail profile.

G. Aluminum Reinforcing Insert: 6063-T5 anodized extruded aluminum "C" section. Used in top and bottom rail of all systems.

H. Balusters: Model # PVC15BAL-[36] [42]. 1-1/2 inch square extruded rigid cellular PVC pickets.

I. Newel Post Cover: Model # PVC4NP-[38] [44] [46]. Standard 4-1/4 by 4-1/4 inches wide. Optional [6] [8] [10] [12] inch widths.

J. Newel Caps and Trim: Standard. Optional [Mahogany wood Newel Cap or other species of wood] or [Cap with integrated lighting system]

K. Decorative Panels: Manufacturer's [standard] [custom] design.

L. Support Block: 1-1/2 inch square extruded rigid cellular PVC picket cut to length and secured to the underside of the bottom rail.

M. Rail to Post Connection: Manufacturer's standard.

2.3 MISCELLANEOUS MATERIALS

A. Fasteners for PVC Railing Components: All fasteners should be Stainless Steel. Fasteners are provided by the manufacturer with each railing kit.

B. Adhesive for Cellular PVC:

1. Extreme Adhesives; PVC Trim Welder.

2. Christy's Red Hot White Vinyl Adhesive.

C. Sealants: Type as recommended by manufacturer and complying with ASTM C 834 and with applicable requirements in Division 07 Section "Joint Sealants."

2.4 FINISHING

A. If railings will be painted, Royal Corinthian recommends the use of premium grade acrylic paints with solar reflective pigment. Use paints designed for use with PVC products.

B. Colors: Due to the inherent expansion and contraction characteristics of PVC, Royal Corinthian PVC millwork products should only be painted using colors with an LVR (light reflective value) greater than 55. Use of darker colors may cause damage due to excessive expansion/contraction, and will void the product warranty.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.

B. Examine PVC materials before installation. Reject materials that are damaged.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrates of projections and substances detrimental to application.

3.3 INSTALLATION, GENERAL

A. Do not use materials that are unsound or warped.

1. Do not use manufactured units with defective surfaces, sizes, or patterns.

B. Install exterior finish carpentry level, plumb, true, and aligned with adjacent materials.

1. Scribe and cut PVC components to fit adjoining work.

2. Coordinate PVC components with materials and systems in or adjacent to it. Provide cutouts for mechanical and electrical items that penetrate exterior finish carpentry.

3.4 INSTALLATION - GENERAL

A. Install PVC railing systems in strict accordance with manufacturer's written installation instructions, and detailed shop drawings.

B. Refer to manufacturer's website for latest information and installation videos.

3.5 ADJUSTING

A. Replace PVC components that are damaged or does not comply with requirements. Adjust joinery for uniform appearance.

3.6 CLEANING

A. Clean exposed and semi exposed PVC surfaces.

3.7 PROTECTION

A. Protect installed products from damage from weather and other causes during construction.

B. Remove and replace PVC materials that are damaged.

END OF SECTION