Acrovyn® 4000

Construction Specialties
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HRBW-10CN (AU)

Series

Product Data

A 158.3mm high handrail/crash rail combination featuring a Renaissance™ wood handrail.

Technical Data:

- 158.3mm height
- 89mm wall offset
- 38.1mm round wood grip
- 1.98mm thick Acrovyn® 4000 crash rail cover with Acrovyn® 4000 end caps; maximum 6.1m length
- 2.1m –3.7m random wood rail length; maximum length varies by species
- Aluminum retainer with regrind PETG cushion; maximum 6.1m length
- Minimum handrail length is 330.2mm
- Acrovyn® 4000 mounting bracket

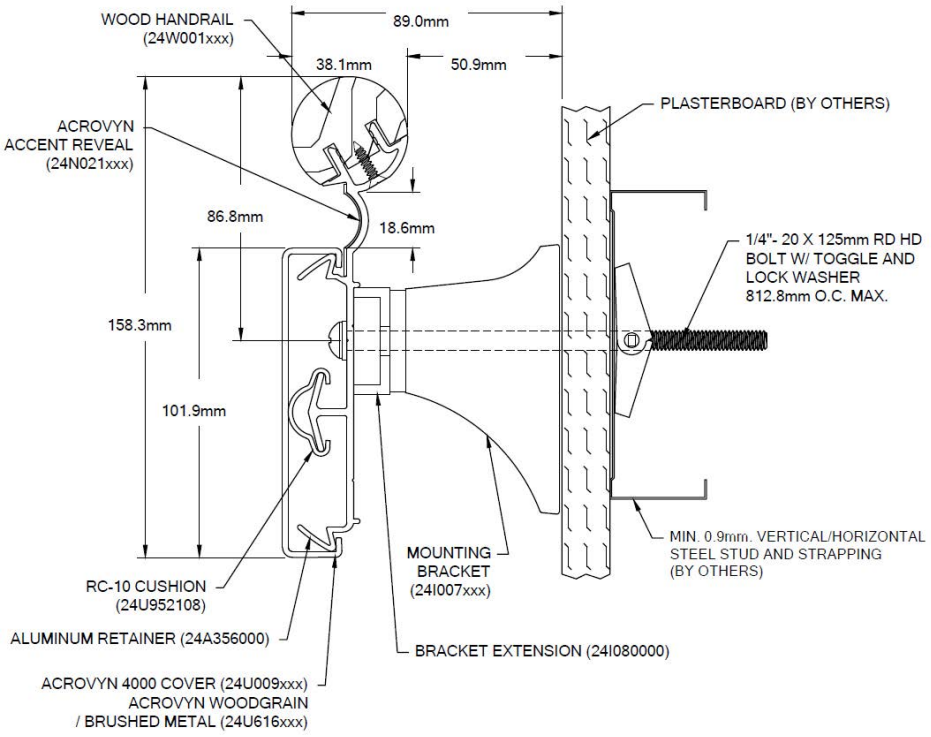
Solid Colours	Acrovyn® 4000 Woodgrains/ Brushed Metals	Real Wood

Features:

- AS 1428.1:2009 (section 12b,c & h) compliance
- Acrovyn® 4000 Group No. 1 NCC 2019 (Amendment. 1) – C1.10
- Shadowgrain texture
- Engineered PETG free of PVC and PBTs
- CA 01350 protocol for low VOC
- 5 year product warranty
- Acrovyn® 4000 Woodgrain/Brushed Metals
- Factory-finished wood handrail and end caps
- Low VOC water based wood finishes

Options:

- Custom wood finishes
- FSC certified wood
- Reveal and crash rail can be different colors
- Factory-formed radius and ramp transitions (except ligature resistant models)
- 90 and odd degree outside corners
- HRBW-10CHLN - high load requirements
- HRBW-10CCMN - ligature resistant bracket
- HRBW-10CQLN - Quick Lock mounting bracket (HRBW-10CQLHLN for high load requirements, HRBW-10CCMN for ligature resistant and HRBW-10CQLCMHLN for ligature resistant and high load requirements)



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SUGGESTED SPECIFICATIONS
SECTION 10 26 00
CS Acrovyn® 4000 Models
HRBW-10CN, HRBW-10CHLN and
HRBW-10CCMN

Part 1 - General

1.01 Summary

A. This section includes the following types of wall protection systems:

1. Handrails

B. Related sections: The following sections contain requirements related to this section:

1. Corner Guards, Bumper Guards, Crash Rails, Accent Rails, Wall Covering, Wall Panels, Door Protection; refer to section 10 26 00 "Wall and Door Protection"

2. Blocking in walls for fasteners; refer to section 09 22 00 "Supports for Plaster and Gypsum Board"

1.02 References

A. NCC 2019 (Amendment. 1) – C1.10

B. AS1428.1 : 2009 (section 12b,c & h) compliance

C. American Society for Testing and Materials

(ATSM)

D. Underwriters Laboratories (UL)

1.03 Submittals

General: Submit the following in accordance with conditions of contract and Division 1 specification section 01 33 00 "Submittal Procedures":

A. Product data and detailed specifications for each system component and installation accessory required, including installation methods for each type of substrate.

B. Shop drawings showing locations, extent and installation details of handrails. Show methods of attachment to adjoining construction.

C. Samples for verification purposes: Submit the following samples, as proposed for this work, for verifi cation of color, texture, pattern, finish and end cap attachment and alignment:

1. 304.8mm long sample of each model specified including end cap.

D. Product test reports from a qualified independent testing laboratory showing compliance of each component with requirements indicated.

E. Maintenance data for wall protection system components for inclusion in the operating and maintenance manuals specified in Division 1.

1.04 Quality Assurance

A. Installer qualifications: Engage an installer who has no less than 3 years experience in installation of systems similar in complexity to those required for this project.

B. Manufacturer's qualifications: Not less than 5 years experience in the production of specified products and a record of successful in-service performance.

C. Code compliance: Assemblies should conform to all applicable codes including AS1428.1: 2009.

D. Impact Strength: Provide assembled wall protection units that have been tested in accordance with the applicable provisions of ASTM F476.

E. Chemical and stain resistance: Provide wall protection system components with chemical and stain resistance in accordance with ASTM D543.

H. Color match: Provide wall protection components that are color matched in accordance with the following:

1. Delta Ecmc of no greater than 1.0 using CIELab color space. (Specifier note: Construction Specialties' colors are matched under cool white fluorescent lighting and computer controlled within manufacturing tolerances. Color may vary if alternate lighting sources are present.)

I. Single source responsibility: Provide all components of the wall protection system manufactured by the same company to ensure compatibility of color, texture and physical properties.

1.05 Delivery, Storage and Handling

A. Deliver materials to the project site in unopened original factory packaging clearly labeled to show manufacturer.

B. Store materials in original, undamaged packaging in a cool, dry place out of direct sunlight and exposure to the elements. A minimum room temperature of 4°C and a maximum of 38°C should be maintained.

C. Material must be stored flat.

1.06 Project Conditions

A. Materials must be acclimated in an environment of 18°-24°C for at least 24 hours prior to beginning the installation.

B. Installation areas must be enclosed and weatherproofed before installation commences.

Part 2 - Products

2.01 Manufacturers

A. Interior surface protection products specified herein and included on the submittal drawings shall be manufactured by Construction Specialties, Inc.

2.02 Materials

A. Solid Wood Components: Shall be manufactured from plain sawn, FAS grade hardwood, kiln dried to a moisture content of 6% to 10%.

B. Engineered PETG: Extruded material should be high-impact Acrovyn 4000 with Shadowgrain texture, nominal 1.98mm thickness. Chemical and stain resistance should be per ASTM D543 standards as established by the manufacturer. Colors to be indicated in the finish schedule from one of manufacturer's available colors and patterns.

C. Aluminum: Extruded aluminum should be 6063-T6 alloy with nominal 2.29mm thickness for models HRBW-10CN and HRBW-10CHLN or 6105-T5 alloy with nominal 1.90mm thickness for model HRBW-10CMN. Minimum strength and durability properties as specified in ASTM B221.

D. Fasteners: All fasteners to be non-corrosive and compatible with aluminum retainers. All necessary fasteners to be supplied by the manufacturer.

2.03 Handrails

A. Engineered PETG Handrails to be CS Acrovyn® 4000: Surface mounted assembly consisting of a continuous extruded aluminum retainer with removable wood handrail and Engineered PETG crash rail. Color matched mounting brackets to be spaced as indicated on installation instructions. Color matched end caps and corners shall be attached to allow post installation adjustment.

All wooden components shall be removable without removing aluminum retainer from wall to allow repair and refinishing with minimum disruption to facility. Attachment hardware shall be appropriate for wall construction.

1. Model HRBW-10CN 159mm high handrail / crash rail configuration.Select handrail from one of Renaissance™ wood species and finishes. FSC certified wood can be specified. Custom woods and finishes available. Select crash rail from one of Acrovyn® 4000 solid colors, Acrovyn® 4000 Woodgrain and Brushed Metals. Select accent reveal from one of Acrovyn® 4000 solid colors. Specify HRBW-10CQLN for optional Quick Lock mounting bracket. For optional high load mounting tested to withstand over 453 kgs peak loads, specify HRBW-10CHLN. Specify HRBW-10CCMN for optional ligature resistant mounting bracket. (Specifier note: refer to the Acrovyn® 4000 Cradle to Cradle Product Summary at www.acrovyn.com/c2c to determine which colors, patterns, woods and finishes are *Cradle to Cradle Certified*™ Gold or Silver for Acrovyn® 4000 wall guards. *Cradle to Cradle Certified*™ is a certification mark licensed by the Cradle to Cradle Products Innovation Institute.)

2.04 Finishes

A. All wood components shall be factory finished. Wood components to be final coated with water based, high solids, clear laquer using a two coat process. Finish shall be in accordance with specified AWI finish system. Coverage shall be a minimum of 75 - 125 microns. Gloss shall be measured on 60° gloss meter as per ASTM D523.

2.05 Fabrication

A. General: Fabricate wall protection systems to comply with requirements indicated for design, dimensions, detail, finish and member sizes.

B. Preassemble wood components in shop as much as possible to minimize field assembly.

C. Fabricate components with wood joints lightly chamfered. Provide surfaces free of chipping, dents and other imperfections.

Part 3 - Execution

3.01 Examination

A. Verification of conditions: Examine areas and conditions under which work is to be performed and identify conditions detrimental to proper or timely completion.

1. Do not proceed until unsatisfactory conditions have been corrected.

3.02 Preparation

A. Surface preparation: Prior to installation, clean substrate to remove dirt, debris and loose particles. Perform additional preparation procedures as required by manufacturer's instructions.

B. Protection: Take all necessary steps to prevent damage to material during installation as required in manufacturer's installation instructions.

3.03 Installation

A. Install the work of this section in strict accordance with the manufacturer's recommendations using only approved mounting hardware and locating all components firmly into position, level and plumb.

B. Temperature at the time of installation must be between 18°-24°C and be maintained for at least 48 hours after the installation.

C. Where splices occur in horizontal runs, splice retainer and rails at different locations along the run.

3.04 Cleaning

A. General: Immediately upon completion of installation, clean rails and accessories in accordance with manufacturer's recommended cleaning method.

B. Remove surplus materials, rubbish and debris resulting from installation as work progresses and upon completion of work.

3.05 Protection

A. Protect installed materials to prevent damage by other trades. Use materials that may be easily removed without leaving residue or permanent stains.

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