# **G2-3120WV Handrail with Ligature Resistant Bracket**

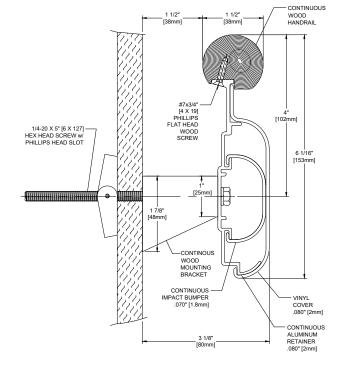
# **Suggested Specifications**



- 6-1/8" (155mm) height x 1-1/2" (38mm) round gripping diameter, extends 3-1/8" (79mm) from the wall
- G2-3120WV Solid wood handrail and integrated non-pvc wall guard, with black reveals for returns and corners
- Solid wood ligature resistant\* bracket.
- Non-PVC cover is manufactured with G2 BioBlend®, Inpro's exclusive blend of PETG and biopolymer
- Mounted on a sturdy .080" (2mm) thick, continuous aluminum retainer
- Wood is manufactured in 8' 16' (2.44m 4.88m) standard lengths
- Meets ADA and ANSI criteria
- Easy installation, clean-up and maintenance
- All mounting fasteners are included with each order
- Meets the most rigorous standards and criteria of chemical emissions as prescribed by the GREENGUARD Environmental Institute
- Has been tested and meets GREENGUARD Environmental Institute's and the state of California's requirements for low emitting products as tested by Air Quality Sciences
- Has been tested and meets the GREENGUARD Children & School chemical emissions levels
  - \* While these products are designed for behavioral health applications, they do not guarantee patient safety.



IPC.2168/REV.1





# **G2-3120WV Handrail with Ligature Resistant Bracket**

# **Suggested Specifications**

#### PART 1 - GENERAL

#### 1.01 SUMMARY

A. Non PVC Handrail systems for pedestrian safety and wall protection

#### 1.02 SECTION INCLUDES

A. G2-3120WO Handrail System, round oak wood handrail with integrated wall guard, with Ligature Resistant Bracket\*.

B. G2-3120WM Handrail System, round maple wood handrail with integrated wall guard, with Ligature Resistant Bracket\*.

#### 1.03 REFERENCES

A. American National Standards Institute (ANSI)

- B. American Society for Testing and Materials (ASTM)
- C. Americans with Disabilities Act (ADA)
- D. National Fire Protection Association (NFPA)
- E. Kitchen Cabinets Manufacturers Association (KCMA) F. Society of Automotive Engineers (SAE)

#### 1.04 SYSTEM DESCRIPTION

A. Performance Requirements: Provide handrail systems that conform to the following requirements of regulatory agencies and the quality control of IPC Door and Wall Protection Systems, InPro Corporation.

- 1. Fire Performance Characteristics: Provide handrail conforming with the NFPA Class A fire rating. Surface burning characteristics, as determined by ASTM E-84, shall be flame spread of 25 or less and smoke development of 450 or less.
- 2. Impact Strength: Provide materials that have been tested in accordance with the applicable provisions of ASTM D-256, Impact Resistance of Plastics.
- 3. Chemical and Stain Resistance: Provide material that shows resistance to stain when tested in accordance with applicable provisions of ASTM D-543.
- 4. Fungal and Bacterial Resistance: Provide material that does not support fungal or bacterial growth as tested in accordance with ASTM G-21 and ASTM G-22. 5. GREENGUARD Certified: Provide GREENGUARD Certified profiles. Profiles shall meet the requirements of GREENGUARD Certification Standards for Low-Emitting Products and GREENGUARD Product Emission Standard for Children & Schools.
- 6. Color Consistency: Provide components matched in accordance with SAE J-1545 (Delta E) with a color difference no greater than 1.0 units using CIE Lab, CIE CMC, CIE LCh, Hunter Lab or similar color space scale systems.
- 7. Cold, heat and chemical resistance: Provide wood handrail with a finish that complies with the applicable provisions of ANSI/KCMA A161.1-1990 for cold check, heat and chemical resistance.
- 8. Environmental compliance: Provide wood handrail and with a finish that does not off gas or emit any VOC, after a full cure, as tested in accordance to the EPA, NESHAP, Method 24, 40CFR, Volume 60, Appendix A. 9. Code Compliance: Provide handrails that comply with all current ANSI and ADA requirements.

# 1.05 SUBMITTALS

A. Product Data: Manufacturer's printed product data for each product indicated in this section.

B. Detail Drawings: Mounting details with the appropriate fasteners for specific project substrates.

C. Samples: Verification samples of handrail, 8" (203mm) long, in full size profiles of each type and

#### color indicated.

D. Manufacturer's Installation Instructions: Printed installation instructions for each handrail.

# 1.06 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in unopened factory packaging to the jobsite

B. Inspect materials at delivery to assure that specified products have been received.

C. Store in original packaging in a climate controlled location away from direct sunlight.

#### 1.07 PROJECT CONDITIONS

A. Environmental Requirements: Install products in an interior climate controlled environment.

#### 1.08 WARRANTY

A. Standard IPC Limited Lifetime Warranty against material and manufacturing defects.

#### PART 2 - PRODUCTS

#### 2.01 MANUFACTURER

A. Acceptable Manufacturer: IPC Interior Protection Products and Decorative Surfaces, InPro Corporation, PO Box 406, Muskego, WI 53150, USA; Telephone: 800.222.5556, Fax: 888.715.8407, www. inprocorp.com B. Substitutions: Not permitted

C. Provide all handrails and wall protection from a single manufacturer.

#### 2.02 MANUFACTURED UNITS

#### A. Wood Handrail

1. G2-3120WO Handrail, 6-1/8" (155mm) height x 1-1/2" (38mm) round gripping diameter, system extends 3-1/8" (79mm) from the wall. System includes a 1-½" diameter oak wood handrail with an integrated wall guard, 4" (102mm) high. Wood is manufactured in random 8'-16' (2.44m-4.88m) standard lengths. a. Ligature Resistant\* Handrail Bracket: Ligature resistant\*bracket shall be solid wood and continuous behind handrail.

2. G2-3120WM Handrail, 6-1/8" (155mm) height x 1-1/2" (38mm) round gripping diameter, system extends 3-1/8" (79mm) from the wall. System includes a  $1\frac{1}{2}$ " (diameter maple wood handrail with an integrated wall guard, 4" (102mm) high. Wood is manufactured in random 8'-16' (2.44m-4.88m) standard lenoths.

a. Ligature Resistant\* Handrail Bracket: Ligature resistant\*bracket shall be solid wood and continuous behind handrail.

### 2.03 MATERIALS

A. Wood: Shall be FAS grade, kiln dried, solid maple or red oak with moisture content of 5-9%.

B. Forest Stewardship Council® Certified Wood: Shall be kiln dried solid FSC Ash.

C. G2 BioBlend™, a blend of PETG and biopolymer: Snap on cover of .080" (2mm) thickness shall be extruded from chemical and stain resistant G2 BioBlend™. Inner snap-on impact bumper of .070" (1.8mm) thickness shall be extruded from chemical and stain resistant G2 BioBlend™.

D. Aluminum: Continuous aluminum retainer of .080" (2mm) thickness shall be fabricated from 6063-T5 aluminum with a mill finish.

E. Ligature Resistant\*Handrail Bracket: Ligature

resistant\*bracket shall be milled from kiln dried poplar wood.

#### 2.04 COMPONENTS

A. Handrail returns, outside corners and inside corners shall be solid wood and a finish to match handrails.

B. Molded returns inside corners outside corners.

B. Molded returns, inside corners, outside corners and brackets shall be made of injection molded thermoplastic.

C. Molded reveals shall have a smooth finish and shall be black

D. Fasteners: All mounting systems accessories appropriate for substrates indicated on the drawings shall be provided.

#### 2.05 FINISHES

A. Wood Stain: Color of the handrail to be selected, by the architect, from the IPC stain selection.

B. Wood Finish: Handrail shall be finished with two coats of pre-catalyzed finish. Finish shall be a low luster satin finish.

C. Handrail Covers: Handrail colors to be selected by the architect from the IPC finish selection. Covers shall have a pebblette texture.

D. Inner Impact Bumper: Color of the inner impact bumper to be black.

E. Molded Components: Returns, inside corners, outside corners and brackets shall be of a color and texture matching the covers.

F. Ligature resistant\* Handrail Bracket: Ligature resistant\* handrail bracket shall be painted black and have a smooth finish.

#### PART 3 – EXECUTION

#### 3.01 EXAMINATION

A. Examine areas and conditions in which the handrail system will be installed.

1. Complete all finishing operations, including painting, before beginning installation of handrail system materials.

2. Wall surface shall be dry and free from dirt, grease and loose paint.

# 3.02 PREPARATION

A. General: Prior to installation, clean substrate to remove dust, debris and loose particles.

# 3.03 INSTALLATION

A. General: Locate handrail as indicated on approved detail drawings for the appropriate substrate and in compliance with the IPC installation instructions. Install handrail level and plumb at the height indicated on the drawings.

### 3.04 CLEANING

A. At completion of the installation, clean surfaces in accordance with the IPC clean-up and maintenance instructions.

\* While these products are designed for behavioral health applications, they do not guarantee patient safety.

