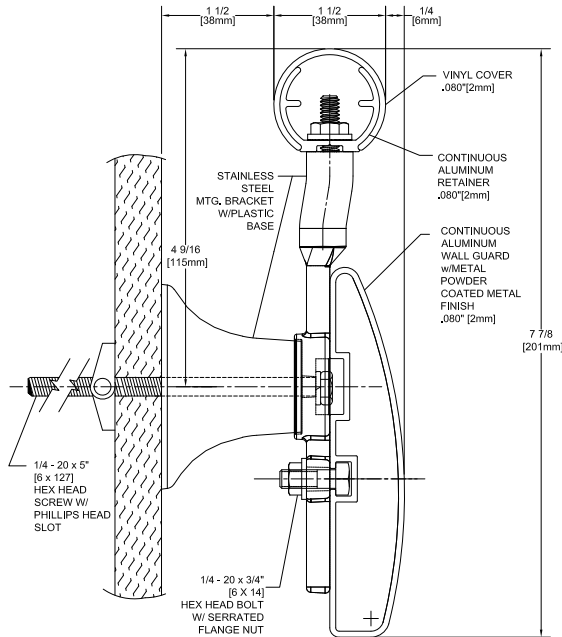
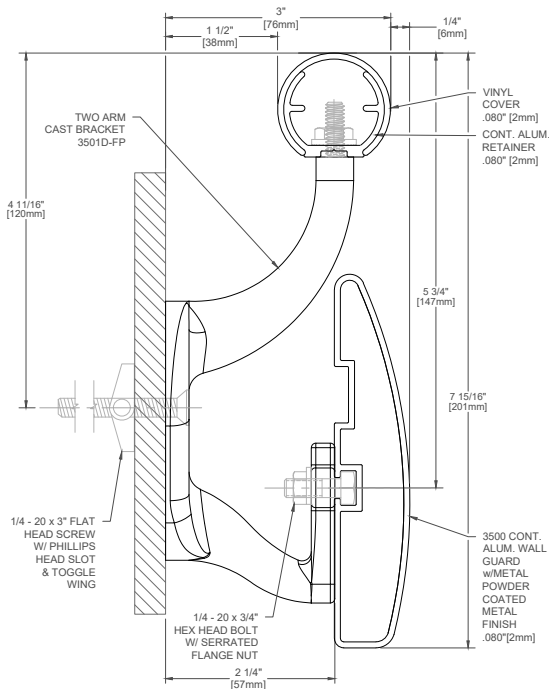
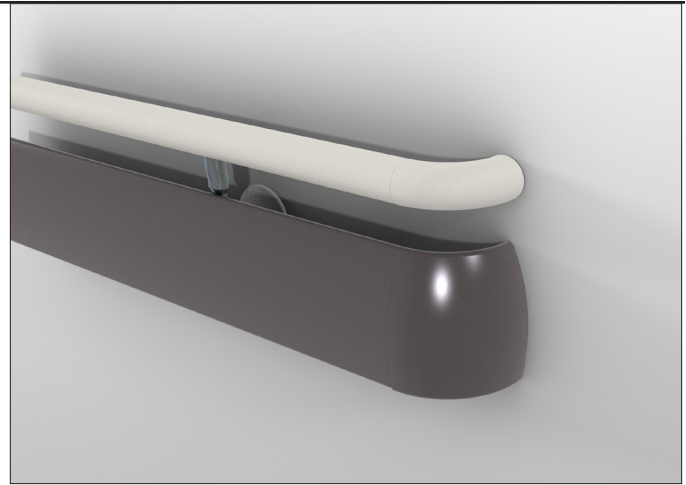


3510VM/3510FVM Silhouette Handrail

Suggested Specifications



STANDARD 3510VM SHOWN



3510VM W/ TWO ARM CAST BRACKET
OPTION

- 7-7/8" (201mm) height x 1-1/2" (38mm) round gripping diameter, system extends 3-1/4" (83mm) from the wall
- 3510VM - Solid color vinyl handrail and integrated aluminum wall guard
- 3510FVM - Faux-wood pattern vinyl handrail with black reveals for returns and corners and integrated aluminum wall guard.
- Handrail is .080" (2mm) thick, scratch and stain resistant rigid vinyl cover
- Lower wall guard has an aluminum wall thickness of .080" (2mm)
- Lower wall guard is available in Metal Tone finish options
- Meets ADA and ANSI criteria
- All mounting fasteners are included with each order



IPC.2200/REV.4

3510VM/3510FVM Silhouette Handrail

Suggested Specifications

PART 1 GENERAL

1.01 SUMMARY

A. Handrail systems for pedestrian safety and wall protection

1.02 SECTIONS INCLUDES

A. 3510VM/3510FVM Silhouette Handrail System, round vinyl handrail with integrated aluminum wall guard

1.03 REFERENCES

A. American National Standards Institute (ANSI)
B. American Society for Testing and Materials (ASTM)
C. American with Disabilities Act (ADA)
D. National Building Code of Canada (NBC)
E. National Fire Protection Association (NFPA)
F. Society of Automotive Engineers (SAE)
G. Underwriters Laboratory (UL)
H. Underwriters Laboratory of Canada (ULC)
I. Uniform Building Code (UBC)

1.04 SYSTEM DESCRIPTION

A. Performance Requirements: Provide metal handrail systems with integrated wall guard 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 metal handrail components conforming with NFPA Class A fire rating. Surface burning characteristics, as determined by ASTM E-84, shall be flame spread of 0 and smoke development of 5.
2. Fire Performance Characteristics: Provide UL Classified vinyl handrail components conforming with NFPA Class A fire rating. Surface burning characteristics, as determined by UL-723 (ASTM E-84), shall be flame spread of 10 and smoke development of 350 - 450. Provide ULC (Canada) listed handrails conforming to the requirements of the National Building Code of Canada 2010, Subsection 3.1.13. Surface burning characteristics, as determined by CAN/ULC5102.2, shall be flame spread of 15 and smoke development of 35.
3. Self-Extinguishing: Provide handrails with a CC1 classification, as tested in accordance with the procedures specified in ASTM D-635-74, Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position, as referenced in UBC 52-4-1988.
4. Impact Strength: Provide rigid vinyl profile materials that have an Impact Strength of 30.2 ft-lbs/inch of thickness as tested in accordance with the procedures specified in ASTM D-256-90b, Impact Resistance of Plastics.
5. Chemical and Stain Resistance: Provide powder coat materials that show resistance to stain when tested in accordance with applicable provisions of ASTM D-543.
6. Chemical and Stain Resistance: Provide vinyl handrail profiles that show resistance to stain when tested in accordance with applicable provisions of ASTM D-543.
7. Fungal and Bacterial Resistance: Provide powder coated metal components that does not support fungal or bacterial growth as tested in accordance with ASTM G-21 and ASTM G-22.
8. Fungal and Bacterial Resistance: Provide rigid vinyl that does not support fungal or bacterial growth as tested in accordance with ASTM G-21 and ASTM G-22.
9. 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.
10. 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 appropriate fasteners for specific project substrates.
C. Samples: Verification samples of handrail, 10" (254mm) long, in full size profiles with mounting brackets of each type 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 environment away from direct sunlight.

1.07 WARRANTY

A. Standard IPC limited lifetime warranty against material and manufacturing defects.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturer: IPC Door and Wall Protection Systems
InPro Corporation, PO Box 406
Muskego, WI 53150 USA
Telephone 800-543-1729, Fax: 888-715-8407
Internet address: www.inprocorp.com
B. Substitutions: Not permitted
C. Provide all handrails and wall protection from a single manufacturer.

2.02 MANUFACTURED UNITS

A. Vinyl/Metal Handrail System
1. 3510VM Silhouette Handrail, 7-7/8" (201mm) height x 1-1/2" (38mm) round gripping diameter, system extends 3-1/4" (83mm) from the wall. System includes 1-1/2" (38mm) diameter vinyl cover/aluminum retainer, top rail and an integrated 4" (102mm) aluminum wall guard.
a. Standard: molded returns, corners, bracket with stainless steel stem.
b. Optional cast aluminum one-piece bracket
c. Optional stainless-steel returns and corner
2. 3510FVM Silhouette Handrail, 7-7/8" (201mm) height x 1-1/2" (38mm) round gripping diameter, system extends 3-1/4" (83mm) from the wall. System includes 1-1/2" (38mm) diameter vinyl cover/aluminum retainer, top rail and an integrated 4" (102mm) aluminum wall guard. Handrail shall have a full wrap faux-wood pattern.
a. Standard: molded returns, corners, bracket with stainless steel stem.
b. Optional cast aluminum one-piece bracket
c. Optional stainless-steel returns and corner

2.03 MATERIALS

A. Vinyl
1. Vinyl: Snap-on covers of .080" (2mm) thickness shall be extruded from chemical and stain resistant unplasticized polyvinyl chloride (uPVC) with the addition of impact modifiers. No plasticizers shall be added (plasticizers may aid in bacterial growth. Woodland patterns when used shall be of polyvinyl chloride (PVC).
2. Molded Vinyl: Returns and corners shall be made of injection mold grade, chemical and stain resistant polyvinyl chloride.
B. Aluminum
1. Continuous aluminum retainer of .080" (2mm) thickness shall be fabricated from 6063-T5 aluminum with a mill finish.
2. Cast aluminum brackets shall be fabricated of ADC 12 cast aluminum with a metallic gray powder-coated finish.

C. Stainless Steel

1. Stainless steel brackets shall be type 304 stainless steel with a #4 satin finish.
2. Stainless steel wall guard shall be manufactured from type 304 stainless steel.
3. Stainless steel returns, corners and brackets shall be made of type 201SS.
- D. Zinc: Bracket adapters shall be cast from zinc.

2.04 COMPONENTS

A. Molded handrail returns, corners and brackets shall be made of injection molded thermoplastic.
B. Wall guard returns and corners shall be extruded aluminum with powder coat.
C. Stainless steel bracket shall be fabricated from cast stainless steel with a brushed finish or a solid color powder coat metal tone finish.
D. One-piece cast aluminum bracket to be finished with a gray metallic powder coat.
E. Fasteners: All mounting systems accessories appropriate for substrates indicated on the drawings shall be provided.

2.05 FINISHES

A. Vinyl Covers: Color of the handrail vinyl cover to be selected, by the architect, from the IPC finish selection. Surface shall have a pebblette texture.
B. Molded Components: Molded handrail returns and corners shall be of a color matching the handrail. Surface shall have a pebblette texture. Molded bracket components shall be a color matching the wall guard. Surface shall have a pebblette texture.
C. Extruded aluminum wall guard to be selected, by architect from Inpro metal tone color palette.
D. Aluminum Bracket: One piece cast bracket to be finished with gray metallic powder coat.
E. Stainless Steel Brackets
1. Color of the stainless steel bracket to be selected by the architect from the Inpro solid color metal tone color palette.
2. Color of stainless steel brackets shall be #4 satin finish stainless steel.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine areas and conditions in which handrail 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 the handrail as indicated on the approved detail drawing 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.