

Pinger Stainless Steel Handrails HRS200 Suggested Specifications

PART 1 – GENERAL

1.01 SUMMARY

- A. Handrail systems for pedestrian safety and wall protection

1.02 SECTIONS INCLUDES

- A. Handrails HRS200 System, round stainless steel handrail with integrated vinyl wall guard

1.03 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide handrail systems that conform to the following requirements of regulatory agencies and the quality control of Wall Protection Systems, Pinger.
 - 1. **Fire Performance Characteristics:**Conforms with EN 13501-1 Class B fire rating.Flame Spread and Smoke:Tested in accordance with ASTM E84, Class A. Smoke concentration is fully qualified, non-toxic, and exhibits no dripping during combustion.
 - 2. **Fungal and Bacterial Resistance:**Manufactured with a silver-ion-infused resin matrix that effectively Inhibits surface fungal growth and pathogenic organisms such as *Escherichia coli* and *Staphylococcus aureus*.Tested and certified in accordance with **JIS Z 2801:2010**.
 - 3. **Mould Proof:** Rated as **Excellent** under ASTM G21-15. Provides superior moisture-proof and mildew-proof performance, inhibiting the growth of *Aspergillus brasiliensis*, *Penicillium funiculosum*, *Chaetomium globosum*, and *Trichoderma viride*.
 - 4. **Horizontal Burning:** Tested in accordance with the procedures specified in UL 94HB(Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Self Supporting Plastics in a Horizontal Position).
 - 5. **Impact Strength:** Engineered with rigid vinyl profile materials providing high impact Resistance (tested to 1kg drop impact) in accordance with **ASTM D256-10EL** and **GB 8624-2012**.
 - 6. **LEED, LCA & IAQ Compliance & Green Sustainable**
 - a. **LEED & Green Building Contribution:** Formulated to support sustainable design credits, contributing directly to **LEED (Leadership in Energy and Environmental Design)** certification requirements for low-emitting materials and recycled content.

Guangzhou Pinger Vinyl Material Co.Ltd

No. 30, Zhuning Road, Yongning Sub-district, Zengcheng
District, Guangzhou City,China
www.pingerpanel.com



Pinger Stainless Steel Handrails HRS200 Suggested Specifications

- b. ○ **Life Cycle Assessment (LCA):** Evaluated through a comprehensive Life Cycle Assessment to ensure minimized environmental footprints, optimized resource efficiency, and extended durability that prevents premature replacement waste.
 - c. ○ **FSC & Sustainable Sourcing:** Supporting responsible material lifecycle management and eco-friendly manufacturing frameworks.
 - d. ○ **Zero Toxic Emissions & Formaldehyde-Free:** Contains no hazardous toxic gases; formaldehyde levels meet strict qualification standards with zero off-gassing upon installation.
 - e. ○ **Low-VOC Certifications:** Rigorously tested for TVOC compliance under **ISO 16000-3/-6/-9** and **SGS CA CDPH 01350** standards.
7. **Chemical Resistance & Stain Proofing:** Features a robust, waterproof, anti-pollution surface that resists staining and is exceptionally easy to clean. Staining test verified in accordance with **EN 423:2001**.
8. **ISO Certified Quality Standards:** Manufactured under ISO 9001, ISO 14001, and ISO 45001 certified management systems, meeting international emission and quality standards for low-emitting architectural products.
9. **Chemical and Corrosion Resistance:** Tested in accordance with ASTM D543-14, ASTM D2240-15, and ASTM D638-14. Exhibits a low coefficient of thermal expansion and contraction with minimal dimensional change under varying temperatures. Highly resistant to most acids, alkalis, salts, alcohols, iodine, vegetable oil, and commercial disinfectants.
10. **Heavy Metal Free:** Guaranteed free from lead, cadmium, and other toxic or hazardous heavy metals. Certified compliant under **California Proposition 65 (CA65)** heavy metal testing.
11. **Durability & Easy Installation:** Highly durable, wear-resistant, and scratch-resistant surface that prevents dust and dirt accumulation for low-maintenance upkeep. Designed for flexible, quiet, and efficient installation: can be direct-glued to substrates, mechanically secured via steel sub-framing, or installed using modular assembly techniques.

1.04 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.

Guangzhou Pinger Vinyl Material Co.Ltd

No. 30, Zhuning Road, Yongning Sub-district, Zengcheng
District, Guangzhou City, China
www.pingerpanel.com



Pinger Stainless Steel Handrails HRS200 Suggested Specifications

- C. Samples: Verification samples of handrail, in full size profiles with mounting brackets of each type indicated.
- D. Manufacturer's Installation Instructions: Printed installation instructions for each handrail.

1.05 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.

1.06 PROJECT CONDITIONS

- A. Environmental Requirements: Products must be installed in an interior climate controlled environment.

1.07 WARRANTY

- A. Standard Pinger Limited Lifetime Warranty against material and manufacturing defects.

PART 2 – PRODUCTS

2.01 MANUFACTURED UNITS

- A. *Stainless Steel/Vinyl Handrail System HRS200 (Dimensions, Color Options, Series Number)*
 - 1. *200mm height x38mm gripping diameter, system extends 85mm from the wall. System includes 38mm diameter stainless steel top handrail and an integrated wall guard. Wall Guard includes vinyl cover, 127mm high with inner impact bumper, 48mm high and continuous aluminum retainer. Handrail shall be Satin Finish. Wallguard shall be a solid color.*

Guangzhou Pinger Vinyl Material Co.Ltd

No. 30, Zhuning Road, Yongning Sub-district, Zengcheng
District, Guangzhou City, China
www.pingerpanel.com



Pinger Stainless Steel Handrails HRS200 Suggested Specifications

- a. *Stainless Steel Grip+Vinyl Cover+Aluminum Handrail*
- b. *200mm Height, 4m Length*
- c. *stainless steel grip: 3m, vinyl cover bumper: 4m*
- d. *Dia. of grip: 38mm*
- e. *Dia. of vinyl cover: 127mm*
- f. *38mm distance with wall*

2.02 MATERIALS

- A. Stainless Steel:
 - 1. Continuous stainless steel rail shall be type 304 alloy with a number 4 satin finish
 - 2. stainless steel brackets, returns and corners shall be type 304, stainless steel.
- B. Vinyl
 - 1. Snap-on vinyl covers of .080" (2mm) thickness shall be extruded from chemical and stain resistant unplasticized vinyl chloride with the addition of impact modifier.
 - 2. Inner snap-on vinyl impact bumper of .070" (1.8mm) thickness shall be extruded from chemical and stain resistant unplasticized vinyl chloride with the addition of impact modifier. No plasticizers shall be added (plasticizers may aid in bacterial growth).
 - 3. Molded components shall be made of vinyl chloride.
- C. Aluminum
 - 1. Continuous aluminum retainer of .080" (2mm) thickness shall be fabricated from 6063-T5 aluminum, with a mill finish.

2.03 COMPONENTS

- A. Handrail returns and corners shall be type 304, stainless steel and a finish to match handrails.
- B. Wall guard returns and outside corners shall be fabricated of aluminum in a finish/color to match the wall guard.
- C. Stainless steel brackets shall be type 304, stainless steel with a brushed finish.
- D. Inner Impact Bumper: Continuous impact bumper shall be extruded of non-vinyl plastic for impact resistance.
- E. Molded bracket components shall be fabricated from injection molded polyvinyl chloride.

Guangzhou Pinger Vinyl Material Co.Ltd

No. 30, Zhuning Road, Yongning Sub-district, Zengcheng
District, Guangzhou City, China
www.pingerpanel.com



Pinger Stainless Steel Handrails HRS200 Suggested Specifications

2.04 FINISHES

- A. Handrail: Stainless steel rail shall be 304 alloy .
- B. Wood Stain: Color of the handrail wall guard to be selected, by the architect, from the IPC stain selection.
- C. Stainless Steel Brackets: Stainless steel brackets shall be #4 satin finish stainless steel.
- D. Molded Bracket Components: Molded bracket components shall be of a color matching the wall guard. Surface shall have a pebblette texture.

PART 3 – EXECUTION

3.01 INSTALLERS

- A. Installer should be familiar with the installation of finished stainless steel products.

3.02 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.

3.03 PREPARATION

- A. Surface Prep: Prior to installation, clean the substrate to remove dust, debris and loose particles. Ensure the substrate is sound and per project plans.

3.04 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.

3.05 CLEANING

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

Guangzhou Pinger Vinyl Material Co.Ltd

No. 30, Zhuning Road, Yongning Sub-district, Zengcheng
District, Guangzhou City, China
www.pingerpanel.com

