

## PROPER HANDLING AND CARE

### Why is proper handling of the hardware so important?

Proper handling of higher-end hinges and hardware products—such as ball bearing, stainless steel-based hinges—for small residential projects, is vastly different than commodity units with common, electroplated, steel-based hinges delivered in high quantities for large construction projects. It's important for door hangers and suppliers to consider all aspects of building construction and communicate to project managers, foremen and other supervisors the proper handling and care of hinges and hardware products, to maintain the aesthetic and integrity of the hinges.

### What type of hinges should be used on an unfinished door?

Cull or throwaway hinges are recommended for use on an unfinished door or door unit that will be finished at a later date. This is because installation, taping and painting, as well as general construction, clean up and other activities can lead to damage. For more information if cull or throwaway hinges are not used, go to our Oxidation (Rust) and Finishing answer for important information.

### What's the best way to care for ball bearing hinges?

It is not recommended to remove hinge pins on ball bearing hinges. These contain casings with small bearings inside and if hinge pins are removed, the hinges can be damaged by the loss of micro bearings.

### How should I approach painting doors and trim onsite?

If painting will be done after a unit is installed, removing all door hardware is recommended. Any hardware not removed should be well covered and/or taped using a recommended low-adherence painter's tape such as Scotch™ Blue or a lighter grade tape.

It is important to keep paint from getting on your hinges as many chemicals in paint itself can damage the finishes on your hinges. This is also true for cleaners that contain chemicals.

### What's the best way to tape a hinge before painting a door?

If taping a hinge, it is important to follow these steps to prevent damage and ensure longevity:

- 1 Select a low-adhering tape such as Scotch™ Blue or a lighter-grade tape. Heavier graded tapes (such as general masking tape) is not recommended and will damage finish plating.
- 2 Tape thoroughly, covering all areas. Paint ingredients will cause damage when wiped or over sprayed on the surface.
- 3 Remove tape immediately after painting.
- 4 Do not clean with solvents or foreign substances including, but not limited to, thinner, lacquer remover or alcohol.
- 5 General hinge and hardware cleaning instructions are to use a mild warm soap and water solution, then immediately drying with a clean rag.

### I want to paint the door hinges onsite. Is that possible?

Some door hinges can be painted, though it's not recommended. Why? Hinges are moving parts and paint will not adhere to these areas, so their appearance over time will likely not be very attractive. Painting can also change the functionality of a hinge, which can lead to improper opening and closing of the door.

In cases where painting is still desired, take note that US2D Zinc Dichromate and LUS15 Dull Nickel are the two finishes recommended for the best paint adhesion. Also, a high-quality latex paint such as Sherwin Williams Pro Max 200 or higher is recommended. Next, these are the steps we recommend:

- 1 Wipe the surface using only water or a mild soap solution and dry immediately.
- 2 Do not scuff, sand or prep the surface with any agents such as thinner, lacquer remover, or alcohol.
- 3 Use paint at 100% strength; do not thin it.
- 4 Two coats are recommended, allowing two hours between coats.
- 5 Allow the paint to cure for twenty-four hours before hanging or operating the hinge

## Oxidation (RUST) & FINISHING

### Why is addressing oxidation & finishing so important?

Standard steel-based finished, plated hinges and hardware products meet or exceed the industry minimum standard. Penrod produces to exceed the minimum standard and provide the highest quality finished product.

Oxidation (rust) is eventually going to occur over time on all steel-based plated products. This process will be accelerated, if not begin to immediately occur, from

- Excessively humid or wet environments
- Building designs that do not wick and/or capture moisture
- Foreign cleaning agents applied directly to, wiped on, or sprayed on that delaminate the finish
- Paint drippings, splatter, or overspray
- General misuse

We recommend using a stainless steel or stainless steel-based product if you will be in excessively wet or humid environments, or if the design or building application limits drying out from weathering. It is important to keep foreign agents away from these products, and if cleaning them, to do so only using a warm-water and mild-soap solution. Please refer to our limited warranty for more details.

### What is the stainless steel grading on Penrod products?

All our stainless steel products are a 304 grade. This is to provide the highest quality and most resistance to oxidation (rust). 304 grade hinges are not recommended in marine environments, which is direct physical contact with salt water. We recommend a 316 grade hinge, which can be reviewed for special lead time production.

## ANSI/BHMA/NFPA 80/FIRE RATING /SPRING GRADING

### What grade are spring hinges and are they UL rated?

Each of our residential and standard grade 1 commercial spring hinges are certified and stamped on the hinge with the grade rating and UL registration number.

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