

Finishing of Steel Components

This technical note provides information on the finish of steel components supplied by Nordic Structures in mass timber construction.

Finishes

Powder Coating

- Powder coating is applied as a free-flowing, dry powder. Powder coating is applied electro-statically and then cured under heat. It is usually used to create a hard finish that is tougher than conventional paint.
- Powder coating offers sufficient protection for a typical construction duration.
- Maximum dimensions – sand blasting and oven: 13' x 4' x 4' (length x depth x width) Note that under certain conditions, steel components may exceed the dimensions of the oven.
- Powder coating comes in different colors. The typical colors used by Nordic are listed below.



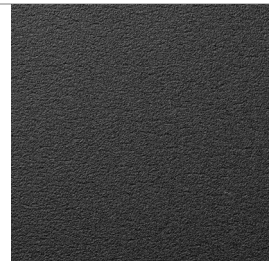
TB Sparkle Silver

- Product: PS-0953-H
- Description: TB Sparkle Silver
- Type: Bonded Polyester



Black

- Product: PB-0170-M
- RAL: 9005 Jet black
- Description: Black
- Type: Polyester



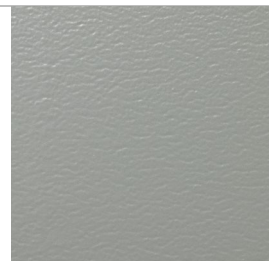
Other colors are available upon request.

Liquid Primer

- Liquid primer is applied directly onto steel surfaces.
- Oversized components must be painted on site.
- The product color is as shown below.

Grey

- Product: Liquid Primer



Finishes (continued)

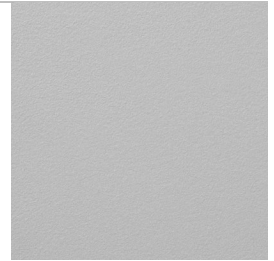
Cold Galvanizing (Zinc-rich Paint)

- Cold galvanizing is simply the application of a zinc-rich paint used to add a cathodic protection to steel components. Zinc paint may be applied by brushes, rollers, spray guns, etc. The zinc-rich paints used in cold galvanizing are different from conventional coatings due to the presence of a binding compound. These binders allow the zinc to mechanically bond to the steel to offer an effective level of protection.
- Zinc-rich paint comes in a metallic color, as shown below.



Grey

- Product: Zinc-rich Paint



Hot-dip Galvanizing

- Hot-dip galvanizing is the process of immersing fabricated steel into a kettle of molten zinc. While in the kettle, iron in the steel metallurgically reacts with the zinc to form a tightly-bonded alloy coating. Hot-dip galvanizing resists corrosion by providing barrier and cathodic protection, as well as through the development of the zinc patina.
- Nordic Structures outsources this process to qualified subcontractors, chosen by their proximity to the plant, the estimated timeline for a given project, and the size of the basins required. This process can therefore have an impact on the schedule.
- Basin sizes (varie): 48' – 56' in length x 10'-6" – 12' in depth x 5'-6" – 6' in width.
- Some variation in coating appearance might occur. Variation in coating appearance does not adversely affect the level of corrosion protection provided.
- This process makes it difficult to add color and comes in matte grey.



Note:

- Other finishes may be available for special applications. For more information, please contact Nordic Structures.

For high-resolution photos of steel components finishes: <https://www.nordic.ca/en/documentation/technical-documents/ns-nt207-hres>

For the steel finishing product technical data sheets : <https://www.nordic.ca/en/documentation/technical-documents/ns-nt207-tds>

High-resolution Photos:

- Photo, Prism Powder Coatings, PS-0953-H
- Photo, Prism Powder Coatings, PB-0170-M
- Photo, Liquid Primer – Grey
- Photo, Zinc-rich Paint – Grey

Technical Data Sheets:

- Technical Data Sheet, Prism Powder Coatings, PS-0953-H
- Technical Data Sheet, Prism Powder Coatings, PB-0170-M