POWDER COATING PROCESS



Powder Coating is a type of corrosion resistant coating that is applied as a free -flowing, dry powder. Powder coating is used in a variety of steel and aluminum constructions on objects where good weather resistance is required, such as in building construction and the automobile industry. Powder Coated surfaces have excellent resistance to chemical, mechanical and climatic stress. And because powder coatings do not contain Volatile Organic Compounds (VOC), coating with powder is an environmentally responsible solution to increasing the lifespan of a product.

Our commitment to quality continues with the powder coating application on high strength structural steel, after the metal components are fabricated into the final configuration. In this process, the metal components are fabricated, welded, sandblasted smooth, primer painted, and finished with a powder coat. Once the powder coat is sprayed to the object, it is exposed to elevated temperatures to begin the curing process that will create a hard finish that is tougher than conventional paint. In addition, powder coatings can produce much thicker coatings than conventional liquid coatings without running or sagging.

The smooth surface that the powder coat provides is an important feature because it increases the lifespan of the membrane by minimizing friction and wear in high loading conditions. The powder coated surface is extremely hard and elastic, making it able to handle the stresses of transport and installation, keeping damage insignificantly small.

Performance Excellence

A more common and cheaper alternative used by competitors is the electro-galvanizing process. In this process steel is coated by electro-depositing an adhering zinc film on the surface of sheet steel or wire. These coatings have a common thickness of 1.6 mil and are typically used as a base for painting.

According to the National Association of Corrosion Engineers, in a heavy Industrial environment it will take steel 3.8 years to corrode for every 1 mil of corrosion protection. The powder coating process provides 5x the protection of the pre-galvanize coating process.

In addition, our structures are pre-engineered to eliminate on-site welding; allowing the erection process to move forward with no welding related damage to the coating. To ensure precise component integration, a single frame is assembled at the factory before shipping and a picture of the assembled truss is sent to the client.

At Signature, we offer the best warranty because we know the best materials are used!







