

EPOXY COATING PROCESS

At Signature Structures LLC, our commitment to quality continues with the application of Tikkurila Coatings on our structural steel, after the metal components are fabricated into the final configuration. In this process, the metal components are fabricated, laser cut, drilled, and welded; sandblasted smooth; painted with Temacoat BH, TemaZinc, and 77 & 99 Primer; and finished with epoxy coatings of TemaCoat BH, Temacoat HB 30, Temador and Temathane. Pre-drilled Holes allow the primer and epoxy coatings to create a uniform layer of corrosion protection on the interior and exterior of the structural steel.

During the application, all surfaces are dried and sandblasted smooth in optimum ambient air conditions. Quality is ensured with compliance to ISO 8501-1 standards – a sandblast grade of Sa2½. Adhesion is further increased when optimum sandblast levels are unattainable by phosphating. Epoxy Paint is the most widely commissioned coating used to protect structural materials for bridges, skyscrapers and maritime projects.



Epoxy Paint is used on a variety of metal and concrete materials to protect and decorate. Epoxy Painted surfaces have excellent resistance to chemical, mechanical and climatic stress. They can also have special properties, such as electrical conductivity and fire retardation. Standard color choices are black, grey and tan with custom colors available upon request. The positive impact epoxy coats have on man-made environments proves Signature's commitment to supplying high-performance, environmentally compliant products.

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. Signature Structures LLC prefers epoxy paint on certain projects because it provides an average of 6 - 8 mil of corrosion protection compared to the 1.6 mil that electro-galvanizing provides.



The smooth 6 – 8 mil surface that the epoxy paint provides is an important feature because it increases the lifespan of the fabric membrane by minimizing friction and wear in high loading conditions.

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. As shown, the painted steel frame arrives on site in ISO quality condition.



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