

poligon® Duplex Coating

Why Choose Duplex Coating

Duplex powder coating—the application of powder coating over hot-dip galvanized steel—should be used when maximum corrosion protection, enhanced durability, and a specific aesthetic finish are required for steel, particularly in harsh environments.

How It Works:

Duplex Coating pairs hot-dip galvanizing with a super-durable TGIC powder coat to deliver superior corrosion resistance and long-lasting aesthetics. The galvanized layer chemically bonds zinc to the steel, providing sacrificial protection, while the powder coat adds a durable barrier finish available in all Poligon colors. Together, these layers create a synergistic system that outperforms either coating alone—extending service life by protecting the steel even if the topcoat is compromised.



Duplex Coating Is Ideal For:

- Coastal areas with high salt exposure
- Swimming pools and areas with high humidity
- Structures near roads that use salt application
- Structures requiring long term maintenance-free performance

Key Benefits:

- The powder coat shields the galvanized layer from UV exposure, moisture, and abrasion
- If the powder coating is scratched or damaged, the underlying zinc continues to protect the steel
- The dual system dramatically reduces maintenance and repainting over the structure's life cycle
- The combination delivers both long-term performance and consistent color retention
- Far exceeds traditional paint methods
- Coating is applied on both the outside and inside of the column to avoid rusting from the inside out

*Because hot-dip galvanizing immerses steel in molten zinc, the bonded zinc layer naturally develops a subtle surface profile—an expected characteristic of the process—and when powder coating is applied over it, the finish follows the underlying surface and may reflect a slight texture from the galvanized layer beneath.

Close-up of Duplex texture detail

