Hercules™ INDUSTRIES

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Electrogalvanized Sheet Steel

Description

Electrogalvanized steel is carbon steel coated with zinc through an electroplating process. It produces a thin, uniform zinc layer with excellent surface quality.

Process

Zinc is applied to cold rolled steel using electroplating. The coating is thinner and smoother than hot-dipped galvanizing, with precise control over thickness.

Specs

Typically conforms to ASTM A879. Coating weights are denoted by classes (e.g., Class 15, 25, 50), indicating coating thickness in g/m^2 or oz/ft^2.

Appearance

Smooth, bright, and uniform matte to reflective finish. Ideal for painted or exposed applications requiring aesthetics.

Applications

Automotive panels, appliances, electronics, furniture, electrical cabinets, and office equipment.

Thickness Range

Generally 0.014” to 0.075”, depending on substrate and application.

Formability

Excellent due to thin, uniform coating and high-quality cold rolled substrate. Suitable for complex forming and stamping.

Weldability

Good weldability with all standard processes. Minimal coating interference and low spatter compared to hot-dip galvanized.

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Paintability

Excellent surface for paint adhesion. Often used in pre-painted products. Surface may be phosphated for enhanced paint bonding.

Protection

Provides sacrificial corrosion resistance, though less durable than hot-dip coatings. Best for indoor or mild environments. Coating is uniform and free of spangle.

Pros

Superior surface finish, precise coating control, excellent paintability and formability.

Cons

Lower corrosion resistance than hot-dip galvanized, higher cost per unit of corrosion protection, not ideal for harsh environments.