

Cold Rolled Sheet Steel

Description

Cold rolled sheet steel is made by further processing hot rolled steel at room temperature. This results in a smoother surface and tighter dimensional tolerances. It is typically ordered with a light oil coating to provide temporary corrosion protection during storage and transport.

Process

The hot rolled steel is first pickled to remove mill scale, then passed through cold reduction mills. This cold working increases strength and refines thickness. The material is then temper passed to improve surface uniformity, flatness, and achieve desired hardness levels.

Specs

Commonly produced to ASTM A1008 standards. Available in Commercial Steel (CS), Drawing Steel (DS), and High Strength Low Alloy (HSLA) grades.

Appearance

Clean, smooth, uniform light gray finish. Ideal for exposed or painted applications.

Applications

Furniture, appliance housings, automotive body panels, cabinets, shelving, and other applications requiring surface quality and dimensional precision.

Thickness Range

Typically 0.014" to 0.125", varying by supplier.

Formability

Excellent. Deep draw and complex forming grades are available. Cold reduction process enhances dimensional consistency.

Weldability

Very good with MIG, TIG, spot, and resistance welding. No mill scale means less surface prep is needed.



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Paintability

Superior to hot rolled. Smooth surface allows for excellent paint and coating adhesion with minimal preparation.

Protection

Usually lightly oiled to prevent corrosion during shipping and storage. Not galvanized unless specifically coated.

Pros

Superior finish, precise dimensions, good strength and formability, excellent for visual or high-tolerance applications.

Cons

Higher cost than hot rolled, not typically used for heavy structural applications without added processing.