
Material Specification Sheet

Cold Roll Steel

Description

Cold roll commercial steel is produced from hot-roll, descaled coils (over 24 inches wide) by cold reducing to the desired thickness, generally followed by annealing to recrystallize the grain structure. Cold Rolling is performed by unwinding the hot roll coil and passing the strip through pairs of horizontal rolls or mill “stands”. Each roll set reduces the steel by a preset percentage until the finished thickness is reached. Cold rolled sheet is very smooth, very flat with a light oil and has straight edges. If you are looking for fewer carbon inclusions, then steel that is cold rolled is the ideal choice. It can be formed by roll-forming, press-forming, flanging, drawing, stretching, and complex draw / stretch forming. Cold Roll steel sheet can be readily welded using either arc or resistance welding techniques. This product is useful for applications that require excellent surface finish. Typical applications include fire dampers, kitchen exhaust and grease duct.

Mechanical Properties

Typical mechanical properties for cold rolled commercial steel are listed below.

- Yield Strength: 30 ksi
- Tensile Strength: 50 ksi
- Elongation: 45%
- Hardness: 60 RB

ASTM Specifications

ASTM Designation A1008 and A568 outlines the general requirements for Cold Roll sheet metal as well as dimension tolerances.

Surface Treatment

The surface finish Matte is widely used for most applications of cold rolled steel sheet. The finish provides a uniform dull surface that is suitable for paint lines. The roughness as measured using a profilometer is approximately 35 – 65 microinches. Cold Roll sheets are prone to rusting, and the standard practice is to apply a rust-preventative oil at the exit end of the temper mill (last process). Most Cold rolled steel sheet is painted after production of a finished part.

Source: US Steel

Atlanta, GA • Greenville, SC • Birmingham, AL • Sanford, FL • Mobile, AL • Jackson, MS

• New Orleans, LA • Memphis, TN • Nashville, TN • Norcross, GA

Serving the sheet metal industry in the Southeast since 1874