
EVERETT STEEL COMPANIES

PRODUCT DESCRIPTION AND GRADES

Sheet steel products are available in cold rolled, hot rolled and hot rolled pickled and oiled.

Hot Rolled As Rolled or Hot Rolled Black is sheet steel with an as rolled surface finish. The surface is medium blue to purple black in color. The surface consists of a thin layer of iron oxide called scale. Adherence of the scale is generally tight on sheet steel products.

Hot Rolled Pickled & Oiled is the same sheet steel product further processed through a continuous pickling line. The pickling solution is either sulfuric or hydrochloric acid at a concentration of approximately 15%. These acids remove the scale by attacking the steel surface below the scale. After pickling the steel in the same process line it is sprayed with special rust preventative oils. The surface appearance will vary from dull silver to a dark gray color. The surface roughness or profilometer reading will run 50 to 80 RMS.

Cold Rolled Sheet is the same hot rolled pickled product called a hot rolled band which is cold reduced up to 70% of its hot rolled gauge. The product is annealed and skin passed or temper rolled through a rolling mill which continuously irons the steel flat and imparts a matte finish. The color is bright silver and the surface roughness is 20-40 RMS which is smoother than HRP&O.

Various ASTM quality grades are produced for different applications for ductility or strength. Cold rolled sheets are available in gauge thickness from 28 through 10. Hot rolled sheet products are available from 16 through 10 gauge.

The following ASTM grades are available:

- A366 Cold rolled sheet steel used for exposed and unexposed parts. The surface roughness or profilometer reading is 25 to 40 RMS. The Commercial Quality hardness range is Rockwell B 48 to 60. This product is capable of being bent in any direction through 180° flat on itself without cracking and is suitable for moderate drawing applications.
- Panel Flat — Extremely flat cold rolled sheets used on part applications where center buckles or "oil canning" are objectionable. The product can also eliminate the need of surface grinding for flatness. Available in a wide gauge range and sheet size.
- A569 Hot rolled sheet steel used on forming applications but not drawing applications. This product is furnished black or pickled and oiled. Rockwell hardness will vary depending on gauge from Rockwell B60 on heavier gauges to Rockwell B75 on lighter gauges.

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PRODUCT DESCRIPTION AND GRADES *(Continued)*

- A570 Hot rolled sheet steel manufactured to various strength levels for structural applications. The mechanical strength properties are controlled by chemical analysis and steel mill rolling practice. Alaska Steel can furnish Grades 30, 33, 36 and in some cases, Grade 40. This product is available as-rolled or pickled and oiled.
- A607 Grade 50. This product is hot rolled, high strength, low alloy steel with 50,000 psi minimum yield strength and is used for higher strength applications than A570. Approximate Rockwell B hardness will be in the 70 to 80 range.
- A620 This sheet steel product is used for very deep draws requiring elongation values from 35 to 45%. The steel is stabilized with aluminum and will not age harden. Rockwell B hardness 38-45.
- CRDQAK