



Hercules
INDUSTRIES

5050 Florence Street
Denver, Colorado 80238
Phone – 303-388-8999
Fax – 303-388-8301

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Letter of Material Certification – Hot Rolled Sheet – CS Type B

This letter is in response to your request for engineering documentation of materials supplied by Hercules Industries.

The hot rolled sheet that Hercules supplies to our customers is a commercial quality (CQ) sheet. The hot rolled sheets and coils adhere to the following ASTM specification. (American Society for the Testing of Metals)

ASTM A1011 / A1011M - 12b Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength

This specification covers hot-rolled, carbon, structural, high-strength low-alloy, high-strength low-alloy with improved formability, and ultra-high strength steel sheet and strip, in coils and cut lengths. The steels covered here are: Commercial Steels of types A, B, C, and D; Drawing Steels of types A and B; Structural Steels of grades 30 [205], 33 [230], 36 [250] (with Types 1 and 2), 40 [275], 45 [310], 50 [340], 55 [380], 60 [410], 70 [480], and 80 [550]; High-strength Low-alloy Steel of classes 1 and 2 in grades 45 [310], 50 [340], 55 [380], 60 [410], 65 [450], and 70 [480]; High-strength Low-alloy steels with improved formability in grades 50 [340], 60 [410], 70 [480], and 80 [550]; and Ultra-high Strength Steels of types 1 and 2 in grades 90 [620] and 100 [690]. Heat and product analyses shall be performed wherein specimens shall conform to required chemical composition of carbon, manganese, phosphorus, sulfur, aluminum, silicon, copper, nickel, chromium, molybdenum, vanadium, niobium, titanium, nitrogen, and boron. Except for Commercial and Drawing steels, all other steels shall undergo two tension tests, and shall conform to the following mechanical requirements: yield strength, tensile strength, and elongation. All steels shall undergo bending tests.

Please contact me if you have any additional questions or concerns.

Sincerely

Don Modesitt
Steel Products Manager
Hercules Industries Inc.
801-644-6998

Don Modesitt