

# ASTM A1011 / A1011M

## Abstract

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.

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## 1. Scope

1.1 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.

1.2 Hot rolled steel sheet and strip is available in the designations as listed in 4.1.

1.3 This specification is not applicable to the steel covered by Specification A 635/A 635M.

1.4 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.