

201 STAINLESS STEEL



Type 201 is an austenitic chromium-nickel-manganese stainless steel that was developed originally to conserve nickel. It provides properties similar to Type 301 and can be used in most applications for Type 301. This alloy is non-magnetic in the annealed condition, but becomes slightly magnetic when cold worked. The rate of work hardening is similar to Type 301, although Type 201 develops somewhat higher yield strength while retaining equal ductility when cold worked. Toughness at low temperatures is excellent.

Typical uses include appliances, restaurant equipment, cooking utensils, sinks, automotive trim, architectural applications such as windows and doors, rail-way cars, trailers and hose clamps.

SPECIFICATIONS

Type 201 Stainless Steel is covered by the following specifications:

- ASTM A 240
- ASTM A 666

AVAILABLE FORMS

AK Steel produces Type 201 Stainless Steel in thicknesses from 0.010" to 0.25" (0.25 to 6.35 mm) and widths up to 48" (1219 mm). For other thicknesses and widths, inquire.

MECHANICAL PROPERTIES

Table 1

Typical Mechanical Properties*

UTS ksi (MPa)	0.2% YS ksi (MPa)	Elongation % in 2" (50.8 mm)	Hardness Rockwell	Impact Strength Izod V-Notch ft-lbs (J)
110 (758)	55 (379)	52	B87	120 (163)

*Annealed condition

Table 2

Cold-Worked Properties*

Condition	UTS ksi (MPa)	0.2% YS ksi (MPa)	Elongation % in 2" (50.8 mm)	Hardness Rockwell C
1/4 hard	125 (862)	75 (517)	25	25
1/2 hard	150 (1034)	110 (150)	15	32
3/4 hard	175 (1207)	135 (931)	12	37
Full hard	185 (1276)	140 (965)	8	41

*Standard practice is to produce to either minimum tensile strength, minimum yield strength or minimum hardness, but not to combinations of these properties.

COMPOSITION

	%
Carbon	0.15 max.
Manganese	5.50 - 7.50
Phosphorus	0.060 max.
Sulfur	0.030 max.
Silicon	1.00 max.
Chromium	16.00 - 18.00
Nickel	3.50 - 5.50
Nitrogen	0.25 max.
Iron	Balance

