ROLLED METAL PRODUCTS
STAINLESS | ALUMINUM | SPECIALTY ALLOYS

TECHNICAL DATA SHEET

AISI 1030 (UNS G10300)

CARBON STEEL

Description

AISI 1030 is a high-carbon steel containing approximately 0.30% carbon that can be hardened by heat treatment to a maximum hardness of approximately Rockwell C 50. Soft annealed high carbon steel is intended for applications requiring moderate forming, while soft spheroidized annealed product is intended for applications requiring maximum cold forming. The soft spheroidized annealed product is processed to give the lowest hardness for maximum formability. This grade of steel is used for machinery parts, brackets, brakes, clips, clutches, springs, washers and for a wide range of applications that can make use of its good combination of mechanical properties.

Hardness Requirements

Hardness requirements for ASTM A109 tempers

Temper	Thickness (inch) Under	Thickness (inch) Through	Rockwell Hardness Max.
Soft Annealed	0.020	-	15T87
	0.030	0.020	30T71.0
	0.300	0.030	B82
Soft Spheroidized Annealed	0.020	-	15T85.5
	0.030	0.020	30T69.0
	0.300	0.030	B77.5

RMP Midwest
12550 Lombard Lane
Alsip, IL 60803

RMP Northeast
450 Winks Lane
Bensalem, PA 19020

RMP South
711 Maddox Simpson Pkwy.
Lebanon, TN 37090

Chemical Composition

Chemical Composition (wt%) limits of AISI 1030*

Element	AISI 1030
Carbon	0.28-0.34
Manganese	0.60-0.90
Phosphorus	0.030
Sulfur	0.035

** Maximum, unless range is indicated*

Physical Properties

Physical properties for AISI 1030 steel

Property	AISI 1030 Data
Density, lb/in^3	0.284
Modulus of Elasticity, psi	29 x 10^6
Coefficient of Thermal Expansion, 68-212˚F, /˚F	6.5 x 10^{-6}
Thermal Conductivity, Btu/ft hr ˚F	30
Specific Heat, Btu/lb ˚F	0.116
Electrical Resistivity, Microohm-in	6.54

Standards

Typical standards for AISI 1030 steel

AISI 1030
ASTM A684