



STAINLESS | ALUMINUM | SPECIALTY ALLOYS

# AISI 1008 (UNS G10080)

CARBON STEEL



## Description

AISI 1008 is a lowcarbon steel containing approximately 0.40% manganese that has excellent weldability and formability. AISI 1008 carbon steel is primarily used in extruded, cold headed, cold upset, and cold pressed parts and forms. AISI 1008 in the cold rolled condition is used for exposed or unexposed parts where bending, moderate drawing, forming and welding may be involved. This steel may normally be welded without special precautions using any of the standard arc or resistance welding processes. AISI 1008 is used in home appliances, furniture, and automotive applications.

## Hardness Requirements

Hardness requirements for ASTM A109 tempers

Temper	Thickness (inch)		Rockwe Hardness	
	Under	Through	Min. 15T90	Max.
No. 1 (hard)	0.025		30T76	B90.0
	0.040	0.025		B84.0
	0.070	0.040		
	0.300	0.070		
No. 2 (1/2 hard)	0.025	-	15T83.5	15T88.5
	0.040	0.025	30T63.5	30T73.5
	0.300	0.040	B70.0	B85
No. 3 (% hard)	0.025	-	15T80	15T85
	0.040	0.025	30T56.5	30T67
	0.300	0.040	B60	B75
No. 4 (skin-rolled)	0.025	-		15T82
	0.040	0.025		30T60
	0.300	0.040		B65
No. 5 (dead soft)	0.025	-		15T78.5
	0.040	0.025		30T53
	0.300	0.040		B55

Data are typical, are provided for informational purposes, and should not be construed as maximum or minimum values for specification or for final design, or for a particular use or application. The data may be revised anytime without notice. We make no representation or warranty as to its accuracy and assume no duty to update. Actual data on any particular product or material may vary from those shown herein. © 2017 RMP Inc. All rights reserved.

RMP Midwest  
1 2550 Lombard Lane  
Alsip, IL 60803

RMP Northeast  
450 Winks Lane  
Bensalem, PA 19020

RMP South  
71 1 Maddox Simpson Pkwy.  
Lebanon, TN 37090

## Chemical Composition

Chemical Composition (wt%) limits of AISI 1008\*

Element	AISI 1008
Carbon	0.10
Manganese	0.30-0.50
Phosphorus	0.030
Sulfur	0.050

Maximum, unless range is indicated

## Physical Properties

Physical properties for AISI 1008 steel

Property	AISI 1008 Data
Density, lb/in <sup>3</sup>	0.284
Modulus of Elasticity, psi	29 x 10 <sup>6</sup>
Coefficient of Thermal Expansion, 68-212*1= /°F	7.0 x 10 <sup>-6</sup>
Thermal Conductivity, Btu/Ft hr ,F	37.7
Specific Heat, Btu/lb °F Electrical	0.12
Resistivity, Microohm-in	5.59

## Standards

Typical standards for AISI 1008 steel

AISI 1008  
ASTMA109