AISI Type 314 Stainless Steel, annealed sheet

Subcategory: Ferrous Metal; Metal; Stainless Steel; T 300 Series Stainless Steel

Component	Wt. %
C	0.25
Cr	Max 26
Fe	47
Mn	2
Ni	Max 22
P	0.045
S	0.03
Si	Max 3

Material Notes:

Has the highest heat-resisting properties of any chromium-nickel steel. Used when maximum resistance to carburization is desired.

Physical Properties	Metric	English	Comments
Density	7.8 g/cc	0.282 lb/in³	
Mechanical Properties			
Hardness, Rockwell B	85	85	
Tensile Strength, Ultimate	689 MPa	99900 psi	
Tensile Strength, Yield	345 MPa	50000 psi	
Elongation at Break	40 %	40 %	In 50 mm
Modulus of Elasticity	200 GPa	29000 ksi	
Electrical Properties			
Electrical Resistivity	7.7e-005 ohm-cm	7.7e-005 ohm-cm	at 20ºC
Magnetic Permeability	1.02	1.02	approximate value for the annealed condition at RT

Thermal Properties

CTE, linear 250°C	15.1 µm/m-°C	8.39 µin/in-°F	at 0-315°C (32-600°F)
CTE, linear 500°C	17.6 µm/m-°C	9.78 µin/in-°F	0 - 815ºC
Specific Heat Capacity	0.5 J/g-°C	0.12 BTU/lb-°F	from 0-100°C (32-212°F)

References for this datasheet.

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistant format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error.