

## Products & Sizes

Coil	Sheet	Plate
0.020" - 0.125"	0.020" - 0.125"	0.1875"

### 17-7 PH Chemical Composition

Element	Min	Max
<b>C</b> Carbon	-	0.09
<b>Mn</b> Manganese	-	1.00
<b>P</b> Phosphorus	-	0.05
<b>S</b> Sulfur	-	0.03
<b>Si</b> Silicon	-	1.00
<b>Cr</b> Chromium	16.00	18.00
<b>Ni</b> Nickel	6.75	7.75
<b>Al</b> Aluminum	0.75	1.50

### Industry Standards

- W.NR 1.4541
- PWA-LCS
- GE Aircraft Engine (GT193)
- GE Aviation S-SPEC-35 AeDMS S-400
- RR SABRe Edition 2
- DFARS Compliant

### Industry Applications

- Aerospace applications
- Chemical processing equipment
- Oil and petroleum refining equipment
- Food grade stainless steel for processing equipment
- General metalworking

## Related Industries

Aerospace

Defense

Fastener

Oil &amp; Gas

Space

## Physical Properties

Property	Value
Density	0.2820 lb/in <sup>3</sup>
Melting Range	2560 - 2625°F (1404 - 1440°C)
Electrical Resistivity (Annealed Condition)	80 Microhm-cm

### Linear Coefficient of Thermal Expansion

Temperature Range		Coefficients	
°C	°F	µm/m°C	in/in/°F·106
21-93	70-200	15.3	8.5
21-204	70-400	16.2	9.0
21-316	70-600	17.1	9.5
21-427	70-800	17.3	9.6

Thermal Conductivity (TH 1050 Condition)			
Temperature Range		Coefficients	
°C	°F	W/m·K	Btu/(hr/ft <sup>2</sup> /in/°F)
149	300	16.87	117
260	500	18.46	128
449	840	21.05	146
482	900	21.05	146

Magnetic Permeability (Annealed Condition)		
Oersteds	AT/m	μ
25	1989	1.4 - 3.4
50	3878	1.4 - 3.6
100	7956	1.4 - 3.5
200	15.912	1.4 - 3.2
max	max	1.4 - 3.6

## Mechanical Properties

Property	Value
Ultimate Tensile Strength psi (MPa)	130,000 (896)
0.2% Tensile Yield Strength psi (MPa)	40,000 (276)
Elongation % in 2" (50mm)	35
Hardness Rockwell	B85