

## Products & Sizes

Coil	Sheet	Precision Reroll Strip
0.010" - 0.125"	0.010" - 0.125"	0.0008" - 0.015"

### 301-1/2 Chemical Composition

	Element	Min	Max
C	Carbon	-	0.15
Mn	Manganese	-	2.00
P	Phosphorus	-	0.045
S	Sulfur	-	0.03
Si	Silicon	-	1.00
Cr	Chromium	16.00	18.00
Ni	Nickel	6.00	8.00
N	Nitrogen	-	0.10

### Industry Standards

- EN 1.4310
- PWA-LCS
- GE Aircraft Engine (GT193)
- GE Aviation S-SPEC-35 AeDMS S-400
- RR SABRe Edition 2
- DFARS Compliant

### Industry Applications

- Aircraft structural parts
- Trailer bodies
- Architectural (roof drainage/door frames, etc.)
- Auto body trim and wheel covers
- Utensils and tablewear
- Conveyor parts

## Physical Properties

Property	Value
Density	0.2850 lb/in <sup>3</sup> (7.88g/cm <sup>3</sup> )
Melting Range	2250 - 2950°F (1399 - 1421°C)
Specific Gravity	8.03
Modulus of Elasticity in Tension	28x10 <sup>6</sup> psi (193 GPa)
Magnetic Permeability	1.02 Max @ 200 H

Linear Coefficient of Thermal Expansion			
Temperature Range		Coefficients	
°C	°F	cm/cm°C	in/in/°F
20-100	68-212	16.6·10 <sup>-6</sup>	9.2·10 <sup>-6</sup>
20-300	68-572	17.6·10 <sup>-6</sup>	9.8·10 <sup>-6</sup>
20-500	68-932	18.6·10 <sup>-6</sup>	10.3·10 <sup>-6</sup>
20-700	68-1292	19.5·10 <sup>-6</sup>	10.8·10 <sup>-6</sup>
20-871	68-1600	19.8·10 <sup>-6</sup>	11.0·10 <sup>-6</sup>

Thermal Conductivity			
Temperature Range		Coefficients	
°C	°F	W/m·K	Btu/(hr/ft <sup>2</sup> /hr/°F/ft)
20-100	68-212	16.30	9.40
20-500	68-932	21.40	12.4

Specific Heat			
Temperature Range		J/kg°K	Btu/lb/°F
°C	°F		
0-100	32-212	500	0.12

Electric Resistivity			
Temperature Range		microhm-cm	microhm-in
°C	°F		
20	68	72	28.3
100	212	78	30.7
200	392	86	33.8
400	752	100	39.4
600	1112	111	43.7
800	1472	121	47.6
900	1652	126	49.6

## Mechanical Properties

Condition	Tensile Strength, Min.		0.2% Yield Strength, Min.		Elong. In 2" (50mm)
	Ksi	MPa	Ksi	MPa	%, Min.
Annealed	75	515	30	205	40
1/4 Hard	125	862	75	517	25
1/2 Hard	150	1034	110	758	18*
3/4 Hard	175	1207	135	931	12*
Full Hard	185	1276	140	965	9*

\* Value shown for thickness greater than 0.015 in. (.038mm).