



## Combined Metals of Chicago Bellwood Service Center

### Alloy 304L Stainless Steel

**UNS: S30403**  
**EN-DIN: 1.4306**

Industries supplied include: Process equipment in mining, chemical, cryogenic, food, dairy, and pharmaceutical industries. 304 grade stainless has excellent welding and formability characteristics and is one of the most utilized stainless steels. 304L is an extra low carbon grade with a 0.03% max carbon content that eliminates carbide precipitation due to welding.

#### Nominal Composition

	C	Mn	P	S	Si	Cr	Ni	N	Fe		
min	-	-	-	-	-	17.5	8.0	-	-		
max	0.030	2.0	0.045	0.030	0.75	19.5	12.0	0.10	BAL		

#### Physical Properties

	At 70°F	At 20°C
<b>Density</b>	0.29 lb./in <sup>3</sup>	8.03 g/cm <sup>3</sup>
<b>Modulus of Elasticity (E)</b>	28.0 x 10 <sup>3</sup> ksi	193 x 10 <sup>3</sup> MPa
<b>Coefficient of Expansion</b>	9.4 x 10 <sup>-6</sup> microinches/in.-°F (70-600°F)	16.9 μm/m-°C (20-300°C)
<b>Electrical Resistivity</b>	28.4 μ ohm.in	72 μ ohm.cm
<b>Thermal Conductivity</b>	9.4 Btu-in./ft. <sup>2</sup> hr.-°F	16.2 W/m-K

#### Applicable Specifications

AMS 5513, ASTM A313, ASTM A240, ASTM A580, ASTM A 666, AMS 5511

#### Typical Mechanical Properties – Typical Room Temperature Mechanical Properties

Condition	Tensile Strength Min (UTS)	0.2% YS Min	Elongation% in 2" Min (50.8 mm)	Hardness Rockwell
<b>Annealed (Min)</b>	70 ksi ( 485 MPa)	25 ksi ( 170 MPa)	40%	92 HRBW (Max)

**Typical mechanical properties are based on ASTM A240**

**\*Tempered Properties available upon request\***

**For further information email:**  
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