

317L Stainless Steel Material Grade

Principal Design Features: 317L is a low carbon version of 317 stainless. It possesses the same high strength and corrosion resistance and will produce stronger welds due to its low carbon content. Many users are shifting over to this alloy in lieu of 304 and 316 as availability and cost improves.

Applications: Chemical and petrochemical process equipment, pulp and paper manufacturing and condensers in fossil and nuclear fueled power generation stations.

Machinability: Low speeds and constant feeds will minimize this alloy's tendency to work harden. Tougher than 304 stainless with a long stringy chip, the use of chip breakers is recommended.

Welding: All common fusion and resistance methods except oxyacetylene welding have proven successful. Use AWS E/ER 317L filler metal for best results.

317L Chemistry Data

Carbon	0.03 max
Chromium	18-20
Iron	Balance
Manganese	2 max
Molybdenum	3 - 4
Nickel	11 - 15
Phosphorus	0.045 max
Silicon	1 max
Sulphur	0.03 max

317L Physical Data

Density (lb / cu. in.)	0.29
Specific Gravity	7.9
Specific Heat (Btu/lb/Deg F - [32-212 Deg F])	0.12
Electrical Resistivity (microhm-cm (at 68 Deg F))	444
Melting Point (Deg F)	2550
Modulus of Elasticity Tension	28

Disclaimer

This information is provided "as is" and MSS makes no warranty of any kind with respect to the subject matter or accuracy of the information contained herein. MSS specifically disclaims all warranties, expressed, implied or otherwise, including without limitation, all warranties of merchantability and fitness for a particular purpose.

In no event shall MSS be liable for any special, incidental, indirect or consequential damages of any kind or any damages whatsoever resulting from loss of use, data, profits, whether or not advised of the possibility of damage, and on any theory of liability, arising out of or in connection with the use of the information contained herein.