

Stainless Steel 304L

Stainless Steel 304L is a low carbon steel with improved corrosion properties. It is particularly useful as a low temperature resistance wire with high strength.

Stainless Steel 304L is available in sizes down to 0.10 mm.

Physical and Mechanical Properties

| | Units | |
|--|-------------------|--|
| Maximum continuous operating temperature in air | °C | 300 |
| Nominal composition | % | Ni 9.5 Cr 18.8 Fe 69.6 Mn 1.47 Si 0.52 C < 0.03 |
| Density at 20°C | g/cm ³ | 7.93 |
| Resistivity at 20°C | μΩcm | 70 |
| Temperature Coefficient of Resistance, 20 – 100°C | 1/K | 0.001 |
| Coefficient of thermal expansion, 20 – 300°C | 1/K | 20 x 10 ⁻⁶ |
| Thermal conductivity at 20°C | W/mK | 13 |
| Specific heat capacity at 20°C | kJ/kgK | 0.49 |
| Melting point (approx.) | °C | 1390 |
| Tensile strength R _m , 0.5 mm wire – annealed | N/mm ² | 670 |
| Elongation at break, 0.5 mm wire - annealed | % | > 20 |

The figures given in this table represent nominal or typical values.

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