

## **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 <sup>3</sup>	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 <sup>-6</sup>
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 <sub>m</sub> , 0.5 mm wire – annealed	N/mm <sup>2</sup>	670
Elongation at break, 0.5 mm wire - annealed	%	> 20

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

*Information contained within this technical data sheet is based upon the general experience of IMI Scott Ltd and is believed to be correct at the time of issue. No warranty is given or is to be implied from the details above. Customers are advised to carry out independent tests in order to determine the suitability of any IMI Scott Ltd product for an application.*