

## **2% Manganese Nickel**

The addition of 2% Manganese strengthens and stiffens the material for high temperature use.

2% Manganese Nickel is available in sizes down to 0.10 mm.

### **Physical and Mechanical Properties**

	Units	
Maximum continuous operating temperature in air	°C	650
Nominal composition	%	Ni 98 Mn 2 Trace: Fe Si Cu
Density at 20°C	g/cm <sup>3</sup>	8.81
Resistivity at 20°C	μΩcm	10.9
Temperature Coefficient of Resistance, 20 – 100°C	1/K	0.004
Coefficient of thermal expansion, 20 – 400°C	1/K	14.3 x 10 <sup>-6</sup>
Thermal conductivity at 20°C	W/mK	61
Specific heat capacity at 20°C	kJ/kgK	0.500
Melting point (approx.)	°C	1450
Tensile strength R <sub>m</sub> , 0.5 mm wire – annealed	N/mm <sup>2</sup>	>400
Tensile Strength, 0.5 mm wire – fully cold worked	N/mm <sup>2</sup>	700
Elongation at break, 0.5 mm wire - annealed	%	> 25
Elongation at break – fully cold worked	%	2

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.*