

2918 (F15), Fe53Ni29Co17

Alloy 2918

Identification

VMI No.	2918				
UNS No.	K94610				
Relevant Specifications	ASTM F15; AMS 7726, 7727, 7728				
Forms	Strip	Wire	Bar	Sheet	
	*			*	
Description	Alloy 2918, commonly known as F15, is a controlled expansion alloy that is produced to ensure good machinability and deep drawing. It is commonly used in hermetic seal applications.				

Chemical Composition (%)

Iron	53 Nominal
Nickel	29 Nominal
Cobalt	17 Nominal
Manganese	0.5 Max
Silicon	0.2 Max
Carbon	0.04 Max
Aluminum	0.1 Max
Magnesium	0.1 Max

Mechanical Properties (all values are for annealed temper; not intended for specification)

Tensile	<82	ksi
	<570	MPa
Yield	35	ksi
	240	MPa
Elongation	35	% in 2"
	35	% in 50mm
Hardness	72	HRB
	130	Hv

Physical Properties

Density	0.3020	lb/in ³			
	8.356	g/cm ³			
Resistivity (Nominal)	294	Ohm•circ mil/ft			
	49	microOhm•cm			
Coefficient of Thermal Expansion from 86°F (30°C) to (micro-in/in-°F) (micro-m/m-K)	212°F	392°F	572°F	752°F	932°F
	100°C	200°C	300°C	400°C	500°C
	3.5	3.2	2.9	2.8	2.9
	6.3	5.7	5.2	5	5.3



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