



# HSM Wire International, Inc

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## Alloy Kovar Technical Datasheet

Kovar Alloy Physical Properties			Kovar Alloy Mechanical Properties			Kovar Alloy Chemistry	
Density	lb/cu in	0.302	Tensile Strength	ksi	75	<i>maximum % unless noted</i>	
Specific Gravity		8.36		MPa	518	Iron	Bal
Curie Temp	°F	815	Yield Strength	ksi	40	Nominal Nickel	29
	°C	435		MPa	276	Nominal Cobalt	17
Melting Point	°F	2640	Elongation	% in 2 in.	30	Carbon	0.02
	°C	1449	Typical Hardness Ann.	Rockwell	HRB 80	Silicon	0.2
Electrical Resistivity	Micro-ohm-cm	40	Modulus of Elasticity	Mpsi	30	Sulfur	--
	Micro-ohm-cm	294		kMPa	2	Chromium	0.2
Thermal Conductivity	W/cm °C	0.17	<b>Kovar Alloy Linear Coefficient of Thermal Expansion</b>				
	BTU-in/sq. ft-hr-	120					
Specific Heat	Cal/g- °C	0.11	Degree C		Degree C		
	BTU/lbm- °F	0.11	30-100	--	30-450	5.1 - 5.5	
Thermal Expansion	ppm/°F	2.9	30-150	--	30-475	--	
	(75°F to 842°F)		30-200	5.5	30-500	6.2	
	ppm/°C	5	30-250	--	30-525	--	
	(25°C to 450°F)		30-300	5.1	30-550	--	
			30-325	--	30-600	7.9	
		30-350	--	30-700	9.3		
		30-375	--	30-800	10.4		
		30-400	4.6 - 5.2	30-900	11.5		
		30-425	--	30-1000	--		



\*\*\*To be used as a guideline only

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