



700 Shepherd Street
 Hendersonville, NC 28792
 Phone: 828-696-9854 or 1-800-843-6105
 Fax: 828-697-7960

METAL FOAM PROPERTIES

Material	Status	Alloy Composition	Density 5% of Theoretical		Melting Temperature		Hardness	Compression Yield Point	Co. of Exp.	Thermal Conductivity	Electrical	
			g/cc	lb/In ³	°C	°F					Psi	µin/in°C
FeCrAlY	P	73Fe-20Cr-5Al-2Y	.36	.01	1510	2749			11		1.38	1249
Platinum	E	100%	1.07	1.07	1791	3256	48 VHN		8.9 (20)	.165	16	107.8
Copper	P	100%	.45	.016	1080	1980			16.5 (20-200)	.941	103.06	16.64
Brass	P	60Cu-40Zn	.43	.02	930	1710		163	19.1 (20-200)	.33	27	63.85
Steel	P	Fe-.8C	.39	.01	1515	2760		140	11.7 (20-200)	.178	17.5	98.51
316 Stainless	P	50Fe-25Cr-5Mo-1M-1Ni-10Si	.39	.01	1400	2550	88HBR	161		.178	25	69.12
Nickel	P	100%	.45	.02	1445	2635	40HBR		13 (0-100)	.22	23	74.96
NiCoCrAlY	E	Bal-20Co-17Cr-12Al-.2Y	.42	.02	1315	2367			17 (20-200)	.03	1.29	1336
Silver	P	100%	.52	.02	961	1761			19.7 (0-100)	1.0	106	16.26
Cobalt L06	E	10Ni-20Cr-51.9Co-15W-1.5Mn-.5Si-.10C	.41	.02					14.2 (20)	.17		
Cobalt F75	E	10Ni-28Cr-7Mo-55Co	.41	.02					14.2 (20)	.17		
Nichrome	E	80Ni-20Cr 60Ni-40Cr	.42	.02	1400 1350	2550 2460			13.5			
Hastelloy X	E	47.3Ni-22Cr-1.5 Co-9Mo-.6W-18.5Fe-.05Si-.10C	.45	.01	1355	2470			13.8			
Hastelloy C	E	57Ni-17Mo-15Cr-5W-6Fe	.45	.02	1370	2500			11.3 (0-100)	.03		
Inconel 600	E	76Ni-15Cr-7.2Fe-1.8others	.42	.02	1415	2515			11.5 (20-200)	.036		
Rhodium	E	100%	.62	.02	1960	3560			8.3 (20-200)	.21		
Titanium	P	100%	.23	.01	1683	3063			8.4 (20)	.43		

P = Current Production

E = Materials are still in Experimental Stage



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Material	Comments
FeCrAlY	Good oxidation resistance up to 2000°F; corrosion resistant: rigid
Platinum	Chemical catalyst applications
Copper	Good electric and thermal conductivity; good material for heat exchangers
Brass	Low temperature use; effective biocide filter
Steel	Structural applications
316 Stainless	Structurally effective up to 600° F.
Nickel	Ductile; resistant to some acids; resistant to salt water
Nickel Cr.	Oxidation resistance at elevated temperatures
Silver	Good electrical conductivity; low corrosion resistance
Cobalt L605 F75	L605 extremely resistant to corrosion; F75 used in medical applications
Nichrome	High resistance to oxidation and corrosion; structurally soft
Hastelloy X	Oxidation and corrosion resistant; low creep rate
Inconel 600-625	Good operating characteristics up to 1500° F
Rhodium	Catalyst applications
Titanium	Mechanically strong; 10-15% dense; do not use in air at high temperature; resistant to almost all acids