C72900 Copper Nickel Tin (spinodal)

Fisk Alloy Wire Inc.
P.O. Box 26
10 Thomas Road N.
Hawthorne, NJ 07506 U.S.A.

Phone: (973) 825-8500
Fax: (973) 427-4585
E-mail: sales@fiskalloy.com

C72900 Copper Nickel Tin (spinodal)

Chemical Composition - Limits	Chemical Composition - Nominal
Cu rem (99.5 min incl named elements)	Cu 77
Ni 14.5-15.5 - incl Co	Ni 15
Sn 7.5-8.5	Sn 8
Zn 0.50 max	
Pb 0.02 max	
Fe 0.50 max	
Mg 0.15 max	
Mn 0.30 max	
Nb 0.10 max	

Specifications	Fabrication Index	
ASTM B740	Soldering	5 - Excellent
ASTM B929	Hot Worked	3 - Good
	Cold Worked	5 - Excellent
	Brazing	5 - Excellent
	Machinability	1 - Poor

Physical Properties

Annealing Range (Min)	1515 °F
Density	0.323 lb/in³
Electrical Conductivity (Age Hardened)	7.8% IACS @ 68 °F
Thermal Conductivity	17 Btu/ft²/ft·hr/°F @ 68 °F
Coefficient of Thermal Expansion	9.1 per °F (68-572 °F)
Modulus of Elasticity (Tension)	18 ksi
Modulus of Rigidity (Tension)	7 ksi
Melting Point (Solidus)	1,750 °F

Fisk Alloy Wire Inc.
P.O. Box 26
10 Thomas Road N.
Hawthorne, NJ 07506 U.S.A.

Phone: (973) 825-8500
Fax: (973) 427-4585
E-mail: sales@fiskalloy.com

C72900 Copper Nickel Tin (spinodal)

Melting Point (Liquidus)	1,920 °F

Fisk Alloy Wire Inc.
P.O. Box 26
10 Thomas Road N.
Hawthorne, NJ 07506 U.S.A.

Phone: (973) 825-8500
Fax: (973) 427-4585
E-mail: sales@fiskalloy.com

C72900 Copper Nickel Tin (spinodal)

Round Wire

TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi) Min	Max	MILL LIMITS (inch)
Annealed	TB00	64.0	85.0	.0010 - .1285 inch
1/4 Hard	TD01	75.0	100	
1/2 Hard	TD02	85.0	110	
3/4 Hard	TD03	95.0	120	
Hard	TD04	100	130	
Spring	TD08	122	145	
Special Spring	TD12	135	155	
TS	TX00	120	150	
1/4 TS	TS01	130	160	
1/2 TS	TS01	145	175	
3/4 TS	TS03	155	185	
Hard TS	TS04	165	195	
Spring TS	TS08	175	205	
Special Spring TS	TS12	180	225	
AM	TM00	95.0	115	
1/2 HM	TM02	105	125	
HM	TM04	115	135	
XHM	TM06	130	150	
XHMS	TM08	150	180	

Square Wire

TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi) Min	Max	MILL LIMITS (inch)
Annealed	TB00	64.0	85.0	.0100 - .0808 inch
1/4 Hard	TD01	75.0	100	

Fisk Alloy Wire Inc.
P.O. Box 26
10 Thomas Road N.
Hawthorne, NJ 07506 U.S.A.

Phone: (973) 825-8500
Fax: (973) 427-4585
E-mail: sales@fiskalloy.com

C72900 Copper Nickel Tin (spinodal)

Square Wire

TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi)		MILL LIMITS (inch)
		Min	Max	
1/2 Hard	TD02	85.0	110	
3/4 Hard	TD03	95.0	120	
Hard	TD04	100	130	
Spring	TD08	122	145	
Special Spring	TD12	135	155	
TS	TX00	120	150	
1/4 TS	TS01	130	160	
1/2 TS	TS01	145	175	
3/4 TS	TS03	155	185	
Hard TS	TS04	165	195	
Spring TS	TS08	175	205	
Special Spring TS	TS12	180	225	
AM	TM00	95.0	115	
1/2 HM	TM02	105	125	
HM	TM04	115	135	
XHM	TM06	130	150	
XHMS	TM08	150	180	

Fisk Alloy Wire Inc.
P.O. Box 26
10 Thomas Road N.
Hawthorne, NJ 07506 U.S.A.

Phone: (973) 825-8500
Fax: (973) 427-4585
E-mail: sales@fiskalloy.com