



Indalloy Number	TEMP (Temperature critical alloy: ±2°C of solidus. Non-temperature critical alloy ±3°C)		Elemental Composition (% by Mass)					TEMP		Electrical Conductivity (1.72μohms-cm)	Thermal Conductivity @ 85°C	Coefficient Expansion @ 20°C	Yield Strength	Tensile Strength	Shear Strength	Young's Modulus	Creep	Elongation %	Brinell Hardness	Wetting Angle °	Latent Heat of Fusion J/g	Specific Heat	
	Liquidus °C	Solidus °C	Au	Ag	Cu	Sn	Pb	Liquidus °F	Solidus °F													lb/in <sup>2</sup>	mm <sup>2</sup>
177	485	451	75.0	Au	25.0	In			869	844	0.4950	13.70											
178	485	451	82.0	Au	18.0	In			905	844	0.5383	14.90											
187	525 E	525	45.0	Ag	38.0	Au	17.0	Ge		977	977	0.3823	10.58										
188	577 E	577	88.3	Al	11.7	Si			1,071	1,071	0.0961	2.66											
189	585	521	86.0	Al	10.0	Si	4.0	Cu		1,085	970	0.0994	2.75										
190	610	577	92.5	Al	7.5	Si			1,130	1,071	0.0968	2.68											
191	630	577	95.0	Al	5.0	Si			1,166	1,071	0.0972	2.69											
217	650	620	55.0	Ag	22.0	Cu	17.0	Zn	5.0	Sn	1,202	1,148	0.3328	9.21									
192	660 MP		100.0	Al						1,220		0.0976	2.70										
179	705	603	61.0	Ag	24.0	Cu	15.0	In		1,301	1,117	0.3425	9.48										
211	705	640	80.0	Cu	15.0	Ag	5.0	P		1,301	1,184	0.2753	7.62										
214	720	600	60.0	Ag	30.0	Cu	10.0	Sn		1,328	1,112	0.3461	9.58										
193	780 E	780	72.0	Ag	28.0	Cu			1,436	1,436	0.3617	10.01											
220	785	775	71.5	Ag	28.0	Cu	0.5	Ni		1,445	1,427	0.3617	10.01										
194	800	370	98.0	Au	2.0	Si			1,472	698	0.6113	16.92											
221	800	690	63.0	Ag	28.5	Cu	6.0	Sn	2.5	Ni	1,472	1,274	0.3508	9.71									
195	890 E	890	80.0	Au	20.0	Cu			1,634	1,634	0.5662	15.67											
196	950 E	950	82.0	Au	18.0	Ni			1,742	1,742	0.5752	15.92											
207	961 MP		100.0	Ag					1,762		0.3794	10.50											
208	985	665	85.0	Cu	8.0	Sn	7.0	Ag		1,805	1,229	0.3205	8.87										
198	1020	1000	80.0	Au	50.0	Ag			1,868	1,832	0.4914	13.60											
222	1030	1025	99.0	Au	1.0	Ga			1,896	1,877	0.6818	18.87											
199	1030	360	99.4	Au	0.6	Sb			1,896	680	0.6894	19.08											
223	1063 MP		99.8	Au	0.2	P			1,945		0.6843	18.94											
200	1064 MP		100.0	Au					1,948		0.6973	19.30	73.4	3.18	14	20000	11.2	39 to 45(2in)				0.13	

**NOTES**

- note 1: Brinell hardness, 2mm ball, 4kg load
- note 2: Modified Brinell hardness, using 100-kg load, 1/2 min.
- note 3: Depends on specimen preparation.
- note 4: % elongation on 5.65 (sq. root area) gauge length
- note 5: J. Zhao, Y. Miyashita and S.L. Mannan; J. Electr. Mater., Vol. 31, 8 (2002) p. 879
- note 6: Results @ 20°C, Multicore Ecosol (MSL Ref. 733 9/99)
- note 7: Mario F. Arenas, Viola L. Acoff

**Conversions:**

Resistivity of IACS / elec. conductivity %IACS = resistivity of alloy  
 ex: 1.72 x 100 / %IACS = micro ohm - cm