

XP6 Copper Alloy

Chemical Composition

	Wt. %
(1) Copper	99.95 min
Oxygen	.003 max.

(1) Cu value includes Ag

Physical Properties

Temper #	Temper Name	Tensile Strength	0.2% Off. Y.S. (ref.)	% El. (ref.)
H00	1/8 Hard	32 - 40	22 - 37	20 - 40
H01	1/4 Hard	34 - 42	26 - 39	13 - 33
H02	1/2 Hard	37 - 46	30 - 44	8 - 32
H03	3/4 Hard	41 - 50	36 - 48	6 - 22
H04	Hard	43 - 52	39 - 50	3 - 16
H06	Extra Hard	47 - 56	44 - 53	2 - 11
H08	Spring	50 - 58	48 - 57	2 - 4
H10	Extra Spring	52 Min.	50 Min.	3 Max.

Temper #	Temper Name	Grain Size Min.	Grain Size Max.	U.T.S. (ref.)	% El. (ref.)
O60	Soft Anneal	A	None	25-38	20 - 42
OS025	Deep-Draw Anneal	A	0.050 mm	---	---

Although no minimum grain size is required, this material must be fully recrystallized

Physical Characteristics

Physical Characteristic	English Units	C. G. S. Units
Melting Point (liquidus)	1981 F	1083 C
Melting Point (solidus)	1981 F	1083 C
Density	0.323 lb./cu. in @ 68 F	8.94 gm./cm ³ @ 20 C
Specific Gravity	8.94	8.94
Coefficient of Thermal Expansion	0.0000098 per °F from 68 F to 572 F	0.0000177 per °C from 20 C to 300 C
Thermal Conductivity	226 Btu/ft. ² /ft/hr/°F @ 68 F	0.934 cal./cm. ² /cm/sec./°C @ 20 c
Electrical Resistivity (annealed)		1.724 Microhm-cm @ 20 C
Electrical Conductivity (annealed)	100% IACS @ 68 F	0.58 Megmho-cm @ 20 C
Modulus of Elasticity (tension)	17,000 ksi	12,000 Kg/mm ²

Typical Uses

Viable alternative to C10200 OFHC, weldable, resists hydrogen embrittlement.

Details released herein are believed to be accurate at the time of issue and are considered for general information only. Use of this information is to be at the consumer's discretion.