

C120 (DLP)

Composition

Cu* (%)	P (%)
99.90 min	0.004-0.012

*) Incl. Ag

Physical Properties

Temper	Melting point (liquidus)	Density lb/in ³ g/cm ³	Specific heat cap. at 68 F (20 °C) Btu/lb°F kJ/(kg°K)	Electrical cond. Nom in black % IACS	Thermal cond. at 68 F (20 °C) Btu/ft h °F W/(m°K)	Mod. of elasticity X1000 ksi GPa	Coef. of therm.exp at 68 F (20 °C) 10 ⁻⁶ /°F 10 ⁻⁶ /°C
	°F °C						
All	1981	0.323	0.092	98	223	17	9.8
	1083	8.9	0.394	98	386	117	17.6

Mechanical Properties

At max 0.040" (1 mm)

Temper	R _{p0.2} Yield strength ksi N/mm ²	R _m Tensile strength ksi N/mm ²	A ₅₀ Elongation 2" %	Hardness for reference HR30T HV	Min bend ratio 90°		Min bend ratio 180°	
					GW	BW	GW	BW
Soft	10 69	26-38 179-262	35		0.0	0.0	0.0	0.0
H02 (1/2H)	37 255	37-46 255-317	20	50 90	0.0	0.5	0.0	1.0
H04 (H)	45 310	43-52 297-359	8	58 100	1.0	2.0	2.0	3.0
H06 (EH)	50 349	47-56 324-386	3	60 105	2.0	3.0	2.5	
H08 (SH)	52 359	50-58 345-400	3	63 110	3.0		4.0	
H10 (ES)	54 373	52 min 359 min	2	61 min 112				

Other tempers are available upon request.

Data for information only and not for use as purchase specification.

Yield strength, Elongation and Hardness are typical values for each temper.

C120 (DLP)

Alloy attributes

Phosphorus-Deoxidized Copper – 120 alloy with a nominal composition of 99.90 % minimum copper combine high conductivity with the advantage of low phosphorus addition. The alloy is therefore easier to weld compared with C110 but has almost the same conductivity.

Excellent electrical and thermal conductivity
Excellent corrosion resistance
Excellent formability
Good weldability

Typical applications

Telecommunication cables.

Design limitations

Exposure to high sulfide media should be avoided.

Applicable specifications

ASTM B152