

C1921 [KFC] (CuFe0.1P)

Composition

Cu* (%)	Fe (%)	P (%)
rem.	0.05-0.15	0.025-0.04

*) Cu+Fe+P min 99.8%

Physical Properties

Temper	Melting point (liquidus)	Density lb/in ³ g/cm ³	Specific heat cap. at 68 F (20 °C)	Electrical cond. Nom in black % IACS	Thermal cond. at 68 F (20 °C)	Mod. of elasticity X1000 ksi GPa	Coef. of therm.exp at 68 F (20 °C)
	°F °C		Btu/lb°F kJ/(kg°K)		Btu/ft h °F W/(m°K)		10 ⁻⁶ /°F 10 ⁻⁶ /°C
All	1980	0.323 8.9	0.092	92 85	192	18 125	9.7
	1080		0.394		334		17.5

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								
H02 (1/2H)	43 297	43-53 297-366	18	105	0.0	0.0	0.0	0.0
H04 (H)	55 379	51-61 352-421	9	120	0.0	0.0	0.0	0.0
H06 (EH)	58 400	55-65 379-448	4	133				
H08 (SH)	68 469	65-75 448-517	3	150				
H10 (ES)								

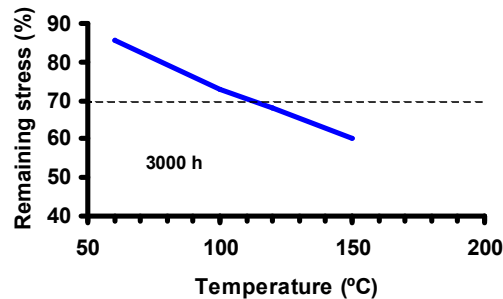
Other tempers are available upon request.

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

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

Stress relaxation resistance

Typical temperature for min 70 % remaining stress after 3000 h: 120 °C



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Alloy attributes

A copper alloy for electrical and heat transfer applications features a singular combination of properties to ensure reliable performance. Electrical conductivity is typically around 92 % IACS with corresponding high thermal conductivity. Excellent stress relaxation performance and high softening temperature make this alloy well suited for demanding connector applications. Good formability also at higher strength levels contributes to the use of KFC for terminals with demanding shapes. Other KFC characteristics contribute to its utility value: corrosion resistance, ease of tinning and relatively high modulus of elasticity.

High electrical and thermal conductivity
Good softening resistance
Good stress relaxation resistance
Good formability

Typical applications

Connectors and terminals for electrical and electronic applications, bus bars for junction boxes, lead frames and electrical contacts.

Design limitations

Exposure to high sulfide media should be avoided.

Applicable specifications

ASTM B465, B888