

C194

Cu-Fe ALLOY

1、Characteristic：

High strength, high electrical conductivity(60% IACS or Higher), fine crystal structure, strong corrosion resistance, good weldability, high softening resistance .

2、Application：

LED lighting and backlight, transistor, diode, integrated body, single, Leadframe, Heat sink, automotive fuses, automotive

3、Physical Properties：

Alloy	C194
Melting Point (°C)	1090
Solidifying Point (°C)	1080
Density (g/cm ³)	8.83
Coefficient of Thermal Expansion×10 ⁻⁶ /°C	17.6
Thermal Conductivity (cal/cm ² /cm/sec/°C)	0.625
Electrical Conductivity (IACS%)	60

4、Chemical Composition (%)

Material	Chemical Composition (%)			
	Cu	Fe	P	Zn
C194	≥ 97.0	2.1~2.6	0.015~0.15	0.05~0.2

5、Mechanical Properties：

Alloy	Temper	Mechanical Properties		
		Tensile Strength Kgf/mm ² (N/mm ²)	Elongation %	Vicker's Hardness Hv Load 0.5Kg
C194	O	310~380	≥ 25	90~110
	1/2 H	365~435	≥ 5	110~130
	H	410~485	≥ 2	125~145
	EH	460~505	—	135~150
	SH	480~525	—	140~155
	ESH	500~550	—	≥ 145