CuCr1Zr combines high electrical and thermal conductivity with good strength

Data sheet for CuCr1Zr

Chemical Composition[1)]	
Cr	0.5-1.2%
Zr	0.03-0.3%
Cu	balance

Material Designation	
EN	CuCr1Zr, CW106C
UNS	C18200
DIN[2)]	CuCrZr, 2.1293
BS[2)]	CC102
NF[2)]	not standardized

Physical Properties[3)]		
Electrical conductivity	MS/m	≥43
	% IACS	≥74
Thermal conductivity	W/(m*K)	>320
Thermal expansion coefficient (0-300°C)	10^{-6}/K	17.6
Density	g/cm^3	8.92
Modulus of elasticity	kN/mm^2	130
Melting range	°C	1070-1080

1) Reference values in % by weight according to EN 12163 2) Former national standards
3) Reference values at room temperature; 1 GPa = 1kN/mm^2; 1 MS/m = 1 m/Ω * mm^2)

CuCrAgFeTiSi has similar properties as CuCr1Zr but slightly higher electrical conductivity

Data sheet for CuCrAgFeTiSi

Chemical Composition[1)]	
Cr	0.5%
Ag	0.1%
Fe	0.08%
Ti	0.06%
Si	0.03%
Cu	balance

Material Designation	
Olin Brass	Alloy C
DIN[2)]	not standardized
EN	not standardized
UNS	C 18080

Physical Properties[3)]		
Electrical conductivity	MS/m	46
	% IACS	80
Thermal conductivity	W/(m*K)	320
Density	g/cm^3	8.92
Modulus of elasticity	GPa	140
Melting range	°C	1080-1100

1) Reference values in % by weight according to EN 12163 2) Former national standards
3) Reference values at room temperature; 1 GPa = $1 kN/mm^2$; 1 MS/m = $1 m/\Omega * mm^2$)