



Copper & Copper Alloy Grade Comparison

Chemical Composition, Mechanical Properties and Physical Constants

	Type	Cu	Pb	Zn	Fe	P	Ag	As	O	Sb	Sn	Tensile Strength N/m.m ²	Yield Strength N/m.m ²	Elongation %	Hardness RB	Temperature °C
Pure Copper	C10100	99.99 Min	0.0005 Max	0.0001 Max	0.0010 Max	0.0003 Max	0.0025 Max	0.0005 Max	0.0005 Max	0.0004 Max	-	240 Min	-	35 Min	40	150 Max
	C10200	99.95 Min	0.0010 Max	-	-	-	-	-	-	-	-	240 Min	49-78	35 Min	40	150 Max
	C11000	99.90 Min	0.0050 Max	0.0040 Max	0.0050 Max	-	-	0.0020 Max	0.0500 Max	0.0200 Max	0.0020 Max	240 Min	69	35 Min	40	150 Max
	C12500	99.88 Min	0.0040 Max	0.0050 Max	0.0050 Max	0.0300 Max	-	0.0120 Max	0.0006 Max	0.0030 Max	0.0020 Max	240 Min	-	35 Min	40	150 Max
Brass	C22000	89.0 - 91.0	0.05 Max	Balance	0.05 Max	-	-	-	-	-	-	300 Min	-	35 Min	42	200 Max
	C23000	84.0 - 86.0	0.05 Max	Balance	0.05 Max	-	-	-	-	-	-	300 Min	-	25 Min	-	200 Max
	C24000	78.5 - 81.5	0.05 Max	Balance	0.05 Max	-	-	-	-	-	-	300 Min	-	35 Min	-	200 Max
	C26000	68.5 - 71.5	0.07 Max	Balance	0.05 Max	-	-	-	-	-	-	300 Min	-	35 Min	-	200 Max
	C26200	67.0 - 70.0	0.07 Max	Balance	0.05 Max	-	-	-	-	-	-	300 Min	-	35 Min	-	200 Max
	C27000	63.0 - 68.5	0.10 Max	Balance	0.07 Max	-	-	-	-	-	0.10 Max	300 Min	-	35 Min	55	200 Max
	C27200	62.0 - 65.0	0.07 Max	Balance	0.07 Max	-	-	-	-	-	-	300 Min	-	40 Min	-	200 Max
	C28000	59.0 - 63.0	0.30 Max	Balance	0.07 Max	-	-	-	-	-	-	300 Min	140	40 Min	78	200 Max
Phosphor Bronze	C51000	Balance	0.05 Max	0.30 Max	0.10 Max	0.03 - 0.35	-	-	-	-	4.20 - 5.80	345 Min	131-552	45 Min	-	200 Max
	C51100	Balance	0.05 Max	0.30 Max	0.10 Max	0.03 - 0.35	-	-	-	-	3.50 - 4.90	345 Min	345-552	48 Min	-	200 Max
	C51900	Balance	0.05 Max	0.30 Max	0.10 Max	0.03 - 0.35	-	-	-	-	5.00 - 7.00	410 Min	586	50 Min	-	200 Max
	C52100	Balance	0.05 Max	0.20 Max	0.10 Max	0.03 - 0.35	-	-	-	-	7.00 - 9.00	410 Min	165-552	50 Min	-	200 Max

Note: This is a reference guide only. Please consult with a WEB product engineer prior to choosing a copper grade.