

High Strength Bronze for Structural Parts

ACuPowder offers three bronze premixes designed specifically for structural applications. They can be compacted to higher densities and will sinter predictably well to develop high strength.

ACuLoy spinodal high strength bronze is ACuPowder's latest advancement in its family of high strength bronzes. This exceptional strength is as a result of an additional aging step. **ACuLoy** is recommended for applications where strength is a necessity but carbon steels are undesirable. Spinodal bronzes offer unique wear properties, excellent corrosion resistance and good thermal conductivity.

Grade	5521	HS-4000A	ACuLoy
Composition, Cu/Sn/Zn/ Lube, %	90/10/0.75	89/9/2/0.75	81/8.5/2.5/0.7/8Ni
Apparent Density, g/cm ³	3.5	3.3	3.1
Flow Rate, sec./50.g	26	35	40
Compacting Pressure, TSI	20	40	40
Green Density, g/cm ³	7.2	7.5	7.5
Sintering Temp., °C/°F	825/1517	845/1553	843/1550
Sintering Time, mins.	30	30	45
Sintering Atmosphere	DA	DA	H2/N2
Dimensional Change, %	0.0	-2.5	-2.2
Sintered Density, g/cm ³	7.2	8.4	7.7
Transverse Rupture Strength, psi, N/mm ²	50,000/350	100,000/690	130,000/900
Tensile Strength, psi, N/mm ²	25,000/175	40,000/275	67,400/470
Yield Strength (0.2%) psi	NA	19,300	53,900
Elongation (in/inch), %	NA	40	0.8
Unnotched Charpy Impact/Energy, ft-lbf	NA	70	5.7

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*From industry pioneer to industry leader,
We are innovation in motion*

ISO 9001

ISO 14001

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