

Product Information Sheet

ISSUE A

ALLOY 668

A. W. Fraser Alloy 668 is a manganese-silicon bronze conforming to the requirements of UNS 66800. Alloy 668 has excellent wear and low friction characteristics due to the formation of manganese silicide particles.

This alloy is available in an extruded and drawn form.

All extrusions are manufactured from continuous cast billet stock ensuring freedom from porosity and a homogenous structure.

ALLOY 668 - Manganese Silicon Bronze

SUMMARY OF PROPERTIES

Chemical Composition - percent [Typical]

Element		
Copper	Cu	61.0
Lead	Pb	0.2 max.
Manganese	Mn	2.3
Silicon	Si	1.1
Iron	Fe	0.1 max.
Tin	Sn	0.2 max.
Zinc	Zn	Balance

Mechanical Properties [Typical]

Yield Strength
Ultimate Tensile Strength
Elongation
Typical Hardness
Specific Gravity
Thermal conductivity
Specific Heat
Thermal Expansion
Machinability

Drawn (Half-Hard Temper, 1" dia. Solid)

340 MPa (49,000 psi) min.
470 MPa (68,000 psi) min.
12% min.
130 BHN min. (74 Rockwell B min)
8.3
58 BTU (sqft-ft-hr-f)
0.09 BTU/lb/°F at 68°F
.000011 Per oF from 68°F to 572°F
Good

Note: Mechanical properties will vary depending on diameter or cross section area of extrusion.

Comparative Specifications

Mueller Brass Co. alloy 6680; Ampcoloy 668