Product Information Sheet

ISSUE D

ALLOY 673 Extrusions

A. W. Fraser Alloy 673 is a leaded manganese-silicon bronze conforming to the requirements of UNS 67300. Alloy 673 has excellent wear 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 uniform dispersion of lead particles and freedom from porosity.

ALLOY 673 - Manganese Silicon Bronze SUMMARY OF PROPERTIES

Chemical Composition - percent [Typical <1" diameter]

Element		
Copper	Cu	60.5
Lead	Pb	1.2
Manganese	Mn	2.3
Silicon	Si	1.1
Iron	Fe	<0.35
Tin	Sn	<0.3
Zinc	Zn	Balance

Mechanical Properties [Typical <1" diameter]	**Drawn**	**As Extruded**
Yield Strength	350 MPa (51,000 psi).	190MPa
Ultimate Tensile Strength	490 MPa (71,000 psi).	408MPa
Elongation	20 %.	40%
Typical Hardness	140-150 BHN min. (78 - 82 Rockwell B)	60-65 Rockwell B
Specific Gravity	8.3	
Thermal conductivity	58 BTU (sqft-ft-hr-f)	
Specific Heat	0.09 BTU/lb/^{o}F at 68^{o}F	
Thermal Expansion	.000011 Per oF from 68^{o}F to 572^{o}F	
Machinability	Good	

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