Product Information Sheet

ISSUE A

ALLOY 955

A. W. Fraser Alloy 955 is a high strength nickel aluminium bronze conforming to the requirements of UNS alloy C95500.

Alloy 955 is a heavy duty, dense, high strength alloy with hardness equal to manganese bronze and excellent resistance to seawater corrosion and fatigue.

This alloy has good wearing qualities and is suitable for elevated temperature use. It exhibits good shock and high stress qualities and is excellent bearing material suitable for heavy duty, high shock and high impact applications.

The composition of A. W. Fraser alloy 955 is strictly controlled as are the casting conditions. Alloy 955 products are manufactured using the latest continuous and centrifugal casting technology.

ALLOY 955 - NICKEL ALUMINIUM BRONZE SUMMARY OF PROPERTIES

Chemical Composition - percent

Element			Nominal
Aluminium	Al	10.0 - 11.5	10.5
Iron	Fe	3.0 - 5.0	4.0
Nickel	Ni	3.0 - 5.0	4.5
Manganese	Mn	3.5 maximum	<0.2
Copper	Cu	Balance	
Total Impurities		0.5 maximum	

Mechanical Properties [Typical]	Continuous Cast	Centrifugal Cast
Yield Strength	300 MPa (43,500 psi)	290 MPa (42,000 psi)
Ultimate Tensile Strength	680 MPa (98,500 psi)	640 MPa (92,500 psi)
Elongation	12%	8%
Typical Hardness	200 HB	200 HB
Shear Strength	331 MPa (47,900 psi)	
Compressive Strength 0.1” set/i nch (Typical)	827 MPa (119,900 psi)	
Impact Strength (Izod)	18 J	
Impact Strength (Charpy Keyhole)	14 J	
Fatigue Strength (10^8 cycles)	214 MPa	
Specific Gravity	7.53	
Machinability Rating (Free Machining Brass=100)	50	

Comparative Specifications

AS1565 95500; ASTM B505, B271 - C95500