

Product Information Sheet

ISSUE A

ALLOY 630

Alloy 630 is a nickel aluminium bronze conforming to the requirements of UNS C63000 and is available as extruded rod.

Alloy 630 is typically used for nuts, bolts, valve seats, plunger tips, marine shafts, valve guides, aircraft parts, pump parts and structural members.

ALLOY 630 - NICKEL ALUMINIUM BRONZE

SUMMARY OF PROPERTIES

Chemical Composition - percent

Element		Nominal	
Copper	Cu	60.0 - 66.0	63.0
Aluminium	Al	9.0 - 11.0	10.0
Nickel	Ni	4.0 - 5.5	5.0
Iron	Fe	2.0 - 4.0	3.0
Manganese	Mn	1.5 maximum	0.5
Zinc	Zn	0.3 maximum	
Tin	Sn	0.2 maximum	
Silicon	Si	0.25 maximum	

Mechanical Properties [Typical]

Yield Strength

Ultimate Tensile Strength

Elongation

Typical Hardness

Specific Gravity

Machinability Rating (Free Machining Brass=100)

Rod (Half Hard)

517 Mpa (75,000 psi)

813 Mpa (118,000 psi)

15%

98 Rockwell B

7.58

30

(Extruded)

413 Mpa (60,000 psi)

689 Mpa (100,000 psi)

15%

96 Rockwell B

Comparative Specifications

AMS 4640E