

COPPER AS-1567 -686, C68600
(HIGH TENSILE BRASS – MANGANESE BRONZE)
WROUGHT PRODUCT, EXTRUDED ROD & BAR



ABOUT

A high strength alloy with good corrosion, machining and hot forging properties.

EQUIVALENT TO

Britain	BS-22874 – CZ114
USA	ASTM -B584-C86400
Japan	
Germany	DIN17660-CuNn40Al.1

APPLICATIONS

- Marine , Valve Bodies ,
Spindles , Nuts , Bolts , Gears
and Bearings.

Nominal Composition	
Copper %	57.50
Lead %	1.0
Manganese %	1.0
Iron %	0.75
Aluminium %	0.50
Tin %	1.00
Zinc %	.38.50

Typical Mechanical Properties		Temper: Drawn		
		Up to 13 mm	13 to 50 mm	Over 50 mm
	Size			
Tensile	MPa	570	525	480
0.2% Proof Stress	MPa	340	295	245
Elongation % (5.65)		20	25	30
Hardness	HV	170	145	120
Shear Strength	MPa	370	340	310

Physical Properties			Corrosion Resistance	
Melting Point °C	890		Rural Atmosphere	Excellent
Density kg/m ³	8360		Industrial Atmosphere	Good-Excellent
Electrical Conductivity % IACS	17		Marine Atmosphere	Good-Excellent
Modulus of Elasticity MPa	103000		Sea Water	Fair-Good
			Drinking Water	Good-Excellent
Fabrication Data			Joining	
Machinability (brass = 100%)	70 %		Oxy- Acetylene welding	Fair
Riveting & Peening	Fair		Coated Metal Arc Welding	Not Recommended
Thread Rolling	Fair		Carbon Arc Welding	Fair
Cold Heading	Not Recommended		Gas Sheilded Arc Welding (Tig & Mig)	Fair
Bending (cold)	Fair		Soft Soldering	Good
Hot Forging	Good - Excellent		Silver Soldering	Fair - Good
Hot Forging Temp °C	675			
Annealing °C	520			
Stress Relieving °C	250			