

Bronze Alloy

Typical Applications

- Valve assemblies
- Marine fasteners
- Drive shafts
- Bearing cages
- Sea water pump bodies
- Bushes
- Weapons handling equipment
- Sleeve bearings

Product Description

C63200 is an American Naval alloy with improved corrosion resistance. It is quench and tempered to eliminate the possibility of corrosion and therefore is commonly used in the building of nuclear submarines as well as surface ships. It is a non-sparking alloy which can be used in explosive environments so therefore is ideal for the petrochemical, mining and weapon handling industries. It is a flexible nickel aluminium bronze that also boasts excellent wear resistance and can be easily welded.

Weldability

Good / fair

Related material specifications

- ASTM B150

Key features

- Superior salt water corrosion resistance
- Excellent wear & abrasion resistance
- Good strength & toughness
- Performs well at high or low temperatures
- Good resistance to shock
- Low magnetic permeability

Availability

Round bar.

Cut to size capability

There are thirty power saws within the Smiths group including a fully automated magazine feed CNC rod blanking line. We can economically cut from one off blanks to the largest production run for immediate or just in time deliveries.

Corrosion Resistance

Excellent

Machinability

Good / fair.

Chemical Composition (weight %)

	Cu	Al	Fe	Pb	Mn	Ni	Si
min	Rem	8.70	3.50		1.20	4.00	
max	Rem	9.50	4.30	0.02	2.00	4.80	0.10

Mechanical Properties

Form	Condition	UTS		0.5% Yield		Elongation %	Hardness HB
		N/mm ²	ksi	N/mm ²	ksi		
Bar	TQ50 Up to 3" (76.2mm)	648-792	94-115	345-496	50-72	15-25	190-230
Bar	TQ 50 >3"-5" (>76.2-127mm)	648-792	94-115	310-400	45-58	15-30	190-230
Bar	TQ 50 >5"-12" (>127-305mm)	634-751	92-109	276-379	40-55	15-25	180-210

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

UK Service Centres:

Smiths Belfast **02895 908 897**
 Smiths Biggleswade **01767 604 704**
 Smiths Birmingham **0121 728 4940**
 Smiths Bristol **0117 971 2800**
 Smiths Chelmsford **01245 466 664**
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Quality & Testing:



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