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	U	ITS	0.5% Yield		Elongation	Hardness	
		N/mm ²	ksi	N/mm ²	ksi	%	HB	
Bar	TQ50 Up to3"(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	
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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 Centre	es:	Quality & Testing:			
Smiths Belfast Smiths Biggleswade Smiths Birmingham Smiths Bristol Smiths Chelmsford Smiths Gatesbead	02895 908 897 01767 604 704 0121 728 4940 0117 971 2800 01245 466 664 0191 469 5428	Smiths Leeds Smiths Manchester Smiths Norwich Smiths Nottingham Smiths Redruth Smiths Verwood	0113 307 5167 0161 794 8650 01603 789 878 0115 925 4801 01209 315 512 01202 824 347	ISO 9001 Quality Management Systems CERTIFIED	
Smiths Horsham	01403 261 981	Main Office	0845 527 3331 W	/ww. smithmetal .com	info@ smithmetal .com

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