

# C46400

## Product Datasheet



Lead-Free Naval Brass

Service. Quality. Value.

### High corrosion resistance

**C46400 is an ideal product for use in marine and offshore applications.**

C46400 is a lead-free naval brass designed for primary forming into wrought products. C46400 is the UNS designation while CW712R is the EN designation. Offering good strength and rigidity, the addition of tin gives the alloy greater corrosion resistance and resistance to dezincification. Therefore, C46400 is far less susceptible to the effects of saltwater corrosion. With other notable benefits such as wear, fatigue and galling resistance, the alloy also provides good resistance to stress corrosion cracking (SCC).

C46400 benefits from good overall strength.



#### Key Features

- Good overall strength
- Excellent corrosion resistance
- Resistance to dezincification
- Good rigidity
- Can be hot worked

#### Applications

- Naval hardware
- Propeller shafts
- Missile components
- Plumbing hardware
- Pressure vessels

#### Chemical Composition (weight %)

	Cu	Fe	Pb	Sn	Zn
Min	59.0			0.5	
Max	62.0	0.10	0.20	1.0	Rem

#### Mechanical Properties (typical)

Tensile Strength	Yield Strength	Elongation at break (in 431.8mm)	Shear Modulus
379 - 607 MPa	172 - 455 MPa*	50%	39 GPa

\* Yield strength dependent on temper.

We stock C46400 naval brass in hex, round, square, flat, sheet and plate forms.

#### UK Service Centres:

Smiths Belfast	02895 908 897	Smiths Leeds	0113 307 5167
Smiths Biggleswade	01767 604 704	Smiths Manchester	0161 794 8650
Smiths Birmingham	0121 728 4940	Smiths Norwich	01603 789 878
Smiths Bristol	0117 971 2800	Smiths Nottingham	0115 925 4801
Smiths Chelmsford	01245 466 664	Smiths Redruth	01209 315 512
Smiths Gateshead	0191 469 5428	Smiths Verwood	01202 824 347
Smiths Horsham	01403 261 981	Main Office	0845 527 3331

#### Quality & Testing:



[www.smithmetal.com](http://www.smithmetal.com) [info@smithmetal.com](mailto:info@smithmetal.com)

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