



# BRODER METALS GROUP DTD900 High Strength

## Copper Nickel

Both High Strength Copper Nickel Standard and Enhanced are Ni Bronze products giving high strength and good corrosion resistance properties, and meeting the requirements of B7 bolting material. The material is defined as API Class AA and PSL 3. The material is readily machinable. The difference between High Strength Copper Nickel Standard and Enhanced is the higher guaranteed minimum mechanical properties.

Both products achieve better tensile properties than other comparable NI Bronze products available.

### Associated Specifications:

DTD900 / 4805

C72400

CuNi14Al3

WK 2.1504

### Corrosion Resistance:

Used where stress corrosion in ammonia / amine & sulphide environments is an issue.

### Chemistry

All products will comply with the below chemical composition

Element	Al	Ni	Zn	Fe	Mn	Cr	Pb	Si	Sn	Cu
Min %	2.0	13.0	-	0.5	0.1	-	-	-	-	-
Max %	4.0	16.0	0.5	2.5	1.0	0.3	0.3	0.3	0.3	Bal

### Mechanical Properties

High Strength Copper Nickel (Standard)	YS – 0.2% offset	Tensile Strength	Elongation
< 65 mm dia			
MPa min	621	759	
Ksi min	90	110	
Elongation in 5D			10%
> 65 mm dia			
MPa min	555	770	
Ksi min	80.5	111	
Elongation in 5D			10%

+44 (0)114 232 9241



sales@broder-metals-group.com

www.broder-metals-group.com



# BRODER METALS GROUP DTD900 High Strength Copper Nickel

## Mechanical properties (continued)

High Strength Copper Nickel Enhanced	YS – 0.2% offset	Tensile Strength	Elongation
< 65 mm dia			
MPa min	655	828	
Ksi min	95	120	
Elongation in 5D			10%
> 65 mm dia			
MPa min	555	770	
Ksi min	80.5	111	
Elongation in 5D			10%

## Hardness:

High Strength Copper Nickel Standard	
HRc min	20
HB min	226

High Strength Copper Nickel Enhanced	
HRc min	21
HB min	226

## NDE

100% acc to API 6A Section 7.4.2.15 PSL 3

## Handling, storing & Packing

General material handling procedures seek to avoid contamination with incompatible materials such as carbon steels. The use of steel strapping of bundles is not allowed: nylon, neoprene, rubber and polythene are used instead.

High Strength Copper Nickel is just one of a range of corrosion resistant materials stocked by Broder Metals Group Ltd, please see our website for the full range stocked: [www.broder-metals-group.com](http://www.broder-metals-group.com)

+44 (0)114 232 9241



[sales@broder-metals-group.com](mailto:sales@broder-metals-group.com)

[www.broder-metals-group.com](http://www.broder-metals-group.com)