



Application Datasheet

Standard Designation for Wrought Copper Alloys

Revision Date: May 13, 2024

Copper-Nickel-Zinc Alloys (Nickel Silvers) (C73500 - C79999)

* = are alloys registered with the U.S. EPA as Antimicrobial.

| UNS # | Cu | | Pb | | Zn | | Fe | | Ni | | Mn | | Other Named Elements | | Status |
|-------------------------------------|------------------------|------------------------|------|---------------------|------|------|------|------|---------------------|---------------------|------|------|----------------------|------|-------------------|
| | Min% | Max% | Min% | Max% | Min% | Max% | Min% | Max% | Min% | Max% | Min% | Max% | Min% | Max% | |
| C73500* Nickel Silver | 70.5 | 73.5 ⁽¹⁾⁽²⁾ | | 0.09 | | Rem | | 0.25 | 16.5 | 19.5 ⁽³⁾ | | 0.50 | | | active |
| C73600 Copper Nickel Zinc Alloy | 69.0 ⁽²⁾ | 73.5 | | 0.10 | | Rem | | 0.25 | | | | | | | inactive 05/72 |
| C73800* Copper Nickel | 68.5 ⁽²⁾ | 71.6 | | 0.05 | | Rem | | 0.25 | 11.0 | 13.0 | | 0.50 | | | inactive 03/92 |
| C74000* Copper Nickel Zinc Alloy | 69.0 ⁽¹⁾⁽²⁾ | 73.5 | | 0.05 | | Rem | | 0.25 | 9.0 | 11.0 ⁽³⁾ | | 0.50 | | | active |
| C74100 Copper Nickel Zinc Alloy | | Rem ⁽²⁾ | | | | | | | | | | | | | inactive 11/74 |
| C74300* Nickel Silver | 63.0 | 66.0 ⁽²⁾⁽¹⁾ | | 0.09 | | Rem | | 0.25 | 7.0 | 9.0 ⁽³⁾ | | 0.50 | | | active |
| C74400* Nickel Silver | 62.0 ⁽²⁾⁽⁴⁾ | 66.0 | | 0.05 | | Rem | | 0.05 | 2.0 | 4.0 ⁽³⁾ | | | | | active |
| C74500* Nickel Silver, 65-10 | 63.5 ⁽²⁾⁽¹⁾ | 66.5 | | 0.09 ⁽⁵⁾ | | Rem | | 0.25 | 9.0 | 11.0 ⁽³⁾ | | 0.50 | | | active |
| C75200* Nickel Silver, 65-18 | 63.0 | 66.5 ⁽¹⁾⁽²⁾ | | 0.05 | | Rem | | 0.25 | 16.5 ⁽³⁾ | 19.5 | | 0.50 | | | active |
| C75400 Nickel Silver, 65-15 | 63.5 ⁽¹⁾⁽²⁾ | 66.5 | | 0.10 | | Rem | | 0.25 | 14.0 | 16.0 ⁽³⁾ | | 0.50 | | | active |
| C75700* Nickel Silver, 65-12 | 63.5 ⁽²⁾⁽¹⁾ | 66.5 | | 0.05 | | Rem | | 0.25 | 11.0 | 13.0 ⁽³⁾ | | 0.50 | | | active |
| C75720* Copper Nickel Zinc | 60.0 ⁽²⁾ | 65.0 | | 0.04 | | Rem | | 0.25 | 11.0 | 13.0 | 0.05 | 0.30 | | | inactive 03/92 |

| UNS # | Cu | | Pb | | Zn | | Fe | | Ni | | Mn | | Other Named Elements | | Status |
|---------------------------------------|------------------------|------------------------|------|------|------|------|------|------|---------------------|---------------------|------|------|----------------------|--------------------|-------------------|
| | Min% | Max% | Min% | Max% | Min% | Max% | Min% | Max% | Min% | Max% | Min% | Max% | Min% | Max% | |
| C75900 Copper Nickel Zinc | 60.0 | 65.0 ⁽²⁾ | | 0.10 | | Rem | | 0.25 | 17.0 | 19.0 | | 0.50 | | | inactive 03/92 |
| C76000 | 60.0 | 63.0 ⁽¹⁾⁽²⁾ | | 0.10 | | Rem | | 0.25 | 7.0 ⁽³⁾ | 9.0 | | 0.50 | | | active |
| C76100 Copper Nickel Zinc | 59.0 ⁽²⁾ | 63.0 | | 0.10 | | Rem | | 0.25 | 7.0 | 9.0 | | 0.50 | | | inactive 03/92 |
| C76200 Nickel Silver | 57.0 | 61.0 ⁽¹⁾⁽²⁾ | | 0.09 | | Rem | | 0.25 | 11.0 | 13.5 ⁽³⁾ | | 0.50 | | | active |
| C76300 Copper Nickel Zinc | 60.0 | 64.0 ⁽²⁾ | 0.50 | 2.0 | | Rem | | 0.50 | 17.0 | 19.0 | | 0.50 | | | inactive 03/92 |
| C76390 Copper Nickel Zinc | 59.0 | 63.0 ⁽²⁾ | 0.8 | 1.1 | | Rem | | 0.25 | 23.0 | 26.0 | | 0.50 | 0.40 Sn | 0.6 Sn | inactive 03/92 |
| C76400* Nickel Silver | 58.5 ⁽²⁾⁽¹⁾ | 61.5 | | 0.05 | | Rem | | 0.25 | 16.5 ⁽³⁾ | 19.5 | | 0.50 | | | active |
| C76600 Copper Nickel Zinc | 55.0 ⁽²⁾ | 58.0 | | 0.10 | | Rem | | 0.25 | 11.0 | 13.5 | | 0.50 | | | inactive 03/92 |
| C76700 Nickel Silver, 56.5-15 | 55.0 ⁽¹⁾⁽²⁾ | 58.0 | | | | Rem | | | 14.0 ⁽³⁾ | 16.0 | | 0.50 | | | active |
| C76800 WNS7 | 47.5 | 50.0 ⁽²⁾⁽¹⁾ | | .09 | | Rem | | | 8.0 ⁽³⁾ | 9.5 | 4.5 | 6.5 | | | active |
| C77000 Nickel Silver, 55-18 | 53.5 | 56.5 ⁽¹⁾⁽²⁾ | | 0.05 | | Rem | | 0.25 | 16.5 | 19.5 ⁽³⁾ | | 0.50 | | | active |
| C77010 Copper Nickel Zinc | 54.0 ⁽²⁾ | 56.0 | | 0.03 | | Rem | | | 17.0 | 19.0 | 0.05 | 0.35 | | | inactive 03/92 |
| C77100 | 52.0 | 56.0 ⁽⁶⁾⁽¹⁾ | | .03 | | Rem | | | 9.0 ⁽⁷⁾ | 12.0 | | .9 | | | active |
| C77300 | 46.0 | 50.0 ⁽²⁾⁽¹⁾ | | 0.05 | | Rem | | | 9.0 ⁽³⁾ | 11.0 | | | 0.04 Si | 0.01 Al 0.25 Si | active |
| C77310 Copper Nickel Zinc | 46.0 | 56.0 ⁽²⁾ | | 0.05 | | Rem | | | 9.0 | 11.0 | | 0.50 | 0.04 Si | 0.01 Al 0.25 Si | inactive 03/92 |
| C77400 | 43.0 | 47.0 ⁽¹⁾⁽²⁾ | | 0.09 | | Rem | | | 9.0 ⁽³⁾ | 11.0 | | | | | active |
| C77600 | 42.0 ⁽²⁾⁽¹⁾ | 45.0 | | 0.25 | | Rem | | 0.20 | 12.0 | 14.0 ⁽³⁾ | | 0.25 | | 0.15 Sn | active |
| C78150 Replaced by C78270 | | | | | | | | | | | | | | | inactive 12/07 |
| C78200 | 63.0 ⁽¹⁾⁽²⁾ | 67.0 | 1.5 | 2.5 | | Rem | | 0.35 | 7.0 | 9.0 ⁽³⁾ | | 0.50 | | | active |
| C78270 Nickel Silver Nickel Silver | 65.0 ⁽²⁾⁽¹⁾ | 68.0 | 1.0 | 1.8 | | Rem | | 0.35 | 4.5 | 6.0 ⁽³⁾ | | 0.50 | | | active |
| C78400 Copper Nickel Zinc Alloy | 60.0 ⁽²⁾ | 63.0 | 0.8 | 1.4 | | Rem | | 0.25 | 9.0 | 11.0 | | 0.50 | | | inactive 05/72 |
| C78600 Copper Nickel Zinc Alloy | 60.0 | 63.0 ⁽²⁾ | 1.25 | 1.75 | | Rem | | 0.35 | 8.5 | 11.0 | | 0.50 | | | inactive 05/72 |
| C78800 Copper Nickel Zinc | 63.0 | 67.0 ⁽²⁾ | 1.5 | 2.0 | | Rem | | 0.25 | 9.0 | 11.0 | | 0.50 | | | inactive 03/92 |

| UNS # | Cu | | Pb | | Zn | | Fe | | Ni | | Mn | | Other Named Elements | | Status |
|---|------------------------|------------------------|------|------|------|------|------|------|---------------------|---------------------|------|------|----------------------|--------------------|-------------------|
| | Min% | Max% | Min% | Max% | Min% | Max% | Min% | Max% | Min% | Max% | Min% | Max% | Min% | Max% | |
| C79000 | 63.0 ⁽¹⁾⁽²⁾ | 67.0 | 1.5 | 2.2 | | Rem | | 0.35 | 11.0 ⁽³⁾ | 13.0 | | 0.50 | | | active |
| C79200 | 59.0 ⁽¹⁾⁽²⁾ | 66.5 | 0.8 | 1.4 | | Rem | | 0.25 | 11.0 | 13.0 ⁽³⁾ | | 0.50 | | | active |
| C79300 Copper Nickel Zinc | 55.0 ⁽²⁾ | 59.0 | 0.50 | 2.0 | | Rem | | 0.50 | 11.0 | 13.0 | | 0.50 | | | active |
| C79350 | 59.0 | 63.0 ⁽¹⁾⁽²⁾ | 0.8 | 1.1 | | Rem | | 0.25 | 23.0 ⁽³⁾ | 26.0 | | 0.50 | | 0.6 Sn | active |
| C79360 | 55.0 ⁽¹⁾ | 57.0 | | 0.03 | | Rem | | 0.30 | 24.0 | 26.0 | | 0.50 | | 0.20 Sn | active |
| C79400 Copper Nickel Zinc Alloy | 59.0 | 66.5 ⁽²⁾ | 0.8 | 1.2 | | Rem | | 0.3 | 16.5 | 19.5 | | 0.50 | | | inactive 05/72 |
| C79600 Leaded Nickel Silver, 10% Nickel Silver | 43.5 | 46.5 ⁽¹⁾⁽²⁾ | 0.8 | 1.2 | | Rem | | | 9.0 | 11.0 ⁽⁷⁾ | 1.5 | 2.5 | | | active |
| C79620 Copper Nickel Zinc | 46.0 | 48.0 ⁽²⁾ | 0.50 | 2.0 | | Rem | | | 8.0 | 11.0 | | 0.50 | | | inactive 03/92 |
| C79800 | 45.5 | 48.5 ⁽²⁾⁽¹⁾ | 1.5 | 2.5 | | Rem | | 0.25 | 9.0 ⁽³⁾ | 11.0 | 1.5 | 2.5 | | | active |
| C79810 Copper Nickel Zinc | 46.0 | 48.0 ⁽²⁾ | 2.0 | 3.5 | | Rem | | | 8.0 | 11.0 | | 0.50 | | | inactive 03/92 |
| C79820 Copper Nickel Zinc | 46.0 | 48.0 ⁽²⁾ | 2.0 | 3.5 | | Rem | | | 8.0 | 11.0 | | 0.50 | | | inactive 02/81 |
| C79830 | 45.5 ⁽²⁾⁽¹⁾ | 47.0 | 1.0 | 2.5 | | Rem | | 0.45 | 9.0 ⁽³⁾ | 10.5 | 0.15 | 0.55 | | | active |
| C79860 | 42.3 | 43.7 ⁽⁸⁾⁽²⁾ | 1.3 | 1.8 | | Rem | | 0.20 | 11.8 ⁽³⁾ | 12.7 | 5.6 | 6.4 | | 0.10 Sn 0.06 Si | active |
| C79900 Copper Nickel Zinc | 47.5 | 50.5 ⁽²⁾⁽¹⁾ | 1.0 | 1.5 | | Rem | | 0.3 | 6.5 | 8.5 ⁽³⁾ | | 0.50 | | | inactive 03/92 |

* = are alloys registered with the U.S. EPA as Antimicrobial.

(1) = Cu + Sum of Named Elements 99.5% min.

(2) = Cu value includes Ag.

(3) = Ni value includes Co.

(4) = Cu + Sum of Named Elements 99.7% min.

(5) = 0.05% Pb, max. for rod, wire, and tube.

(6) = Includes Ag.

(7) = Includes Co.

(8) = Cu + Sum of Named Elements 99.8% min.