

# Material: SAE J462 C87800

## Standard Specification for Cast Copper Alloys

**Group:** Non-Ferrous Copper Alloy

**Sub Group:** SAE J462 Cast Copper Alloys

**Application:** Intended for Valve, Pump, General Engineering, Automotive and Other Industries Grade

**Belongs to the Industry:** Casting

| Chemical Composition |           |                 | Heat Treatment          |          |
|----------------------|-----------|-----------------|-------------------------|----------|
| Aluminium            | Al %      | 0.150 max.      | As-Cast                 |          |
| Arsenic              | As %      | 0.050 max.      |                         |          |
| Iron                 | Fe %      | 0.150 max.      |                         |          |
| Magnesium            | Mg %      | 0.010 max.      |                         |          |
| Manganese            | Mn %      | 0.150 max.      |                         |          |
| Ni + Co              | Ni% + Co% | 0.200 max.      |                         |          |
| Phosphorus           | P %       | 0.010 max.      |                         |          |
| Lead                 | Pb %      | 0.150 max.      |                         |          |
| Sulphur              | S %       | 0.050 max.      |                         |          |
| Antimony             | Sb %      | 0.050 max.      |                         |          |
| Silicon              | Si %      | 3.800 - 4.200   | Mechanical Properties   |          |
| Tin                  | Sn %      | 0.250 max.      | Tensile Strength in Mpa | 585 min. |
| Zinc                 | Zn %      | 12.000 - 16.000 | Yield Strength in Mpa   | 345 min. |
| Copper               | Cu %      | 80 min.         | Elongation in %         | 25 min.  |
| -                    | -         | -               | Reduction of Area in %  | -        |
|                      |           |                 | Hardness in BHN         | -        |
|                      |           |                 | Impact in Joule         | -        |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| C87800                | UNS      | USA     | Rod, Bar, Tube and Shapes    |
| B176 C87800           | ASTM     | USA     | Casting                      |
| B30 C87800            | ASTM     | USA     | Ingot and Casting            |
| CA878                 | SAE      | USA     | Casting                      |
| C87800                | UNS      | USA     | Casting                      |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |

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Customer Care: +91-99090 45075 Email: [info@icastllp.com](mailto:info@icastllp.com)