

## Material: ASTM B505 Tin Bronze UNS C90700

### Standard Specification for Copper Alloy Continuous Casting

**Group:** Non-Ferrous Copper Alloy

**Sub Group:** ASTM B505 / 505M Copper Alloys for Continuous Casting

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

**Belongs to the Industry:** Rod, Bar, Tube and Shapes

| Chemical Composition |           |                 | Heat Treatment          |          |
|----------------------|-----------|-----------------|-------------------------|----------|
| Tin                  | Sn %      | 10.000 - 12.000 | As-Cast                 |          |
| Lead                 | Pb %      | 0.500 max.      |                         |          |
| Zinc                 | Zn %      | 0.500 max.      |                         |          |
| Ni + Cu              | Ni% + Cu% | 0.500 max.      |                         |          |
| Iron                 | Fe %      | 0.150 max.      |                         |          |
| Antimony             | Sb %      | 0.200 max.      |                         |          |
| Sulphur              | S %       | 0.050 max.      |                         |          |
| Phosphorus           | P %       | 1.500 max.      |                         |          |
| Aluminium            | Al %      | 0.005 max.      |                         |          |
| Silicon              | Si %      | 0.005 max.      |                         |          |
| Copper               | Cu %      | 88.000 - 90.000 |                         |          |
| -                    | -         | -               |                         |          |
| -                    | -         | -               |                         |          |
| -                    | -         | -               |                         |          |
| -                    | -         | -               |                         |          |
| -                    | -         | -               |                         |          |
|                      |           |                 | Mechanical Properties   |          |
|                      |           |                 | Tensile Strength in Mpa | 276 min. |
|                      |           |                 | Yield Strength in Mpa   | 172 min. |
|                      |           |                 | Elongation in %         | 10 min.  |
|                      |           |                 | Reduction of Area in %  | -        |
|                      |           |                 | Hardness in BHN         | -        |
|                      |           |                 | Impact in Joule         | -        |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| B30 C90700            | ASTM     | USA     | Ingot and Casting            |
| B427 C90700           | ASTM     | USA     | Casting                      |
| B505 C90700           | ASTM     | USA     | Casting                      |
| SB-505 C90700         | ASME     | USA     | Casting                      |
| CA907                 | SAE      | USA     | Casting                      |
| SAE 65                | SAE      | USA     | Casting                      |
| CACIn502              | KS       | Korea   | Ingot and Casting            |

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