

## Material: ASTM B584 C85700

### Standard Specification for Copper Alloy Sand Casting for General Applications

**Group:** Non-Ferrous Copper Alloy

**Sub Group:** ASTM B584 Copper Alloy Sand Casting for General Applications

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

**Belongs to the Industry:** Casting

| Chemical Composition |           |                 | Heat Treatment               |          |
|----------------------|-----------|-----------------|------------------------------|----------|
| Aluminium            | Al %      | 0.800 max.      | As-Cast                      |          |
| Iron                 | Fe %      | 0.700 max.      |                              |          |
| Ni + Co              | Ni% + Co% | 1.000 max.      |                              |          |
| Lead                 | Pb %      | 0.800 - 1.500   |                              |          |
| Silicon              | Si %      | 0.050 max.      |                              |          |
| Tin                  | Sn %      | 0.500 - 1.500   |                              |          |
| Zinc                 | Zn %      | 32.000 - 40.000 |                              |          |
| Copper               | Cu %      | 58.000 - 64.000 |                              |          |
| -                    | -         | -               | <b>Mechanical Properties</b> |          |
| -                    | -         | -               |                              |          |
| -                    | -         | -               |                              |          |
| -                    | -         | -               |                              |          |
| -                    | -         | -               |                              |          |
| -                    | -         | -               |                              |          |
| -                    | -         | -               |                              |          |
| -                    | -         | -               |                              |          |
|                      |           |                 | Tensile Strength in Mpa      | 276 min. |
|                      |           |                 | Yield Strength in Mpa        | 97 min.  |
|                      |           |                 | Elongation in %              | 15 min.  |
|                      |           |                 | Reduction of Area in %       | -        |
|                      |           |                 | Hardness in BHN              | -        |
|                      |           |                 | Impact in Joule              | -        |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| C85700                | UNS      | USA     | Rod, Bar, Tube and Shapes    |
| B176 C85700           | ASTM     | USA     | Casting                      |
| B271 C85700           | ASTM     | USA     | Casting                      |
| B30 C85700            | ASTM     | USA     | Ingot and Casting            |
| B505 C85700           | ASTM     | USA     | Casting                      |
| SB-584 C85700         | ASME     | USA     | Casting                      |
| CACIn203              | KS       | Korea   | Casting                      |

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