

## Material: ASTM B763 C 99500

### Standard Specification for Copper Alloy Sand Castings for Valve Applications

**Group:** Non-Ferrous Copper Alloy

**Sub Group:** ASTM B763 Copper Alloy Sand Castings for Valve Applications

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

**Belongs to the Industry:** Casting

| Chemical Composition |      |               | Heat Treatment               |          |
|----------------------|------|---------------|------------------------------|----------|
| Aluminium            | Al % | 0.500 - 2.000 | As-Cast                      |          |
| Iron                 | Fe % | 3.000 - 5.000 |                              |          |
| Manganese            | Mn % | 0.500 max.    |                              |          |
| Nickel               | Ni % | 3.500 - 5.500 |                              |          |
| Lead                 | Pb % | 0.090 max.    |                              |          |
| Silicon              | Si % | 0.500 - 2.000 |                              |          |
| Zinc                 | Zn % | 0.500 - 2.000 |                              |          |
| Copper               | Cu % | Balance       |                              |          |
| -                    | -    | -             | <b>Mechanical Properties</b> |          |
| -                    | -    | -             |                              |          |
| -                    | -    | -             |                              |          |
| -                    | -    | -             |                              |          |
| -                    | -    | -             |                              |          |
| -                    | -    | -             |                              |          |
| -                    | -    | -             |                              |          |
| -                    | -    | -             |                              |          |
|                      |      |               | <b>Mechanical Properties</b> |          |
|                      |      |               | Tensile Strength in Mpa      | 483 min. |
|                      |      |               | Yield Strength in Mpa        | 276 min. |
|                      |      |               | Elongation in %              | 12 min.  |
|                      |      |               | Reduction of Area in %       | -        |
|                      |      |               | Hardness in BHN              | -        |
|                      |      |               | Impact in Joule              | -        |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| C99500                | UNS      | USA     | Rod, Bar, Tube and Shapes    |
| B30 C99500            | ASTM     | USA     | Ingot and Casting            |
| B505 C99500           | ASTM     | USA     | Casting                      |
| SB-505 C99500         | ASME     | USA     | Casting                      |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |

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