

## Material: ASTM B176 UNS C85700

### Standard Specification for Copper Alloy Die Castings

**Group:** Non-Ferrous Copper Alloy

**Sub Group:** ASTM B176 Copper Alloy Die Castings

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

**Belongs to the Industry:** Casting

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

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| B176 C85700           | ASTM     | USA     | Casting                      |
| B271 C85700           | ASTM     | USA     | Casting                      |
| B30 C85700            | ASTM     | USA     | Casting                      |
| B505 C85700           | ASTM     | USA     | Casting                      |
| B584 C85700           | ASTM     | USA     | Casting                      |
| SB-584 C85700         | ASME     | USA     | Casting                      |
| CACIn203              | KS       | Korea   | Casting                      |

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