

## Material: BS EN 1706 AC- 51400

### Standard Specification for Aluminium and Aluminium Alloys - Casting

**Group:** Non-Ferrous Aluminium Alloy

**Sub Group:** BS EN 1706 Aluminium and Aluminium Alloys - Casting

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

**Belongs to the Industry:** Casting

| Chemical Composition |      |               | Heat Treatment                                                                                                                                                                                            |  |
|----------------------|------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Copper               | Cu % | 0.050 max.    | As-Cast                                                                                                                                                                                                   |  |
| Iron                 | Fe % | 0.550 max.    |                                                                                                                                                                                                           |  |
| Magnesium            | Mg % | 4.500 - 6.500 |                                                                                                                                                                                                           |  |
| Manganese            | Mn % | 0.450 max.    |                                                                                                                                                                                                           |  |
| Silicon              | Si % | 1.500 max.    |                                                                                                                                                                                                           |  |
| Titanium             | Ti % | 0.200 max.    |                                                                                                                                                                                                           |  |
| Beryllium            | Be % | 0.005 max.    |                                                                                                                                                                                                           |  |
| Zinc                 | Zn % | 0.100 max.    |                                                                                                                                                                                                           |  |
| Other                | Ot%  | 0.150 max.    |                                                                                                                                                                                                           |  |
| Aluminium            | Al % | Balance       |                                                                                                                                                                                                           |  |
| -                    | -    | -             | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 160 - 180<br>Yield Strength in Mpa 100 - 110<br>Elongation in % 3 min.<br>Reduction of Area in % -<br>Hardness in HB 60 - 65<br>Impact in Joule - |  |
| -                    | -    | -             |                                                                                                                                                                                                           |  |
| -                    | -    | -             |                                                                                                                                                                                                           |  |
| -                    | -    | -             |                                                                                                                                                                                                           |  |
| -                    | -    | -             |                                                                                                                                                                                                           |  |
| -                    | -    | -             |                                                                                                                                                                                                           |  |

| Cross Reference Table |          |               |                              |
|-----------------------|----------|---------------|------------------------------|
| Material              | Standard | Country       | Grade Belong to the Industry |
| EN AC-51400           | DIN      | Germany       | Casting                      |
| Al Mg5(Si)            | ISO      | International | Casting                      |
| EN AC-51400           | ASME     | USA           | Casting                      |
| EN AC-51400           | AFNOR NF | France        | Casting                      |
| EN AC-51400           | UNE      | Spain         | Casting                      |
| EN AC-51400           | UNI      | Italy         | Casting                      |
| EN AC-51400           | SFS      | Finland       | Casting                      |

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