

## Material: DIN EN 1706 AC- 51000

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

**Group:** Non-Ferrous Aluminium Alloy

**Sub Group:** DIN 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 % | 0.100 max.    | As-Cast                                                                                                                                                                                                |  |
| Iron                 | Fe % | 0.550 max.    |                                                                                                                                                                                                        |  |
| Magnesium            | Mg % | 2.500 - 3.500 |                                                                                                                                                                                                        |  |
| Manganese            | Mn % | 0.450 max.    |                                                                                                                                                                                                        |  |
| Silicon              | Si % | 0.550 max.    |                                                                                                                                                                                                        |  |
| Titanium             | Ti % | 0.200 max.    |                                                                                                                                                                                                        |  |
| Zinc                 | Zn % | 0.100 max.    |                                                                                                                                                                                                        |  |
| Other                | Ot%  | 0.150 max.    |                                                                                                                                                                                                        |  |
| Aluminium            | Al % | Balance       |                                                                                                                                                                                                        |  |
| -                    | -    | -             | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 140 - 150<br>Yield Strength in Mpa 70 min.<br>Elongation in % 3 - 5<br>Reduction of Area in % -<br>Hardness in HB 50 min.<br>Impact in Joule - |  |
| -                    | -    | -             |                                                                                                                                                                                                        |  |
| -                    | -    | -             |                                                                                                                                                                                                        |  |
| -                    | -    | -             |                                                                                                                                                                                                        |  |
| -                    | -    | -             |                                                                                                                                                                                                        |  |
| -                    | -    | -             |                                                                                                                                                                                                        |  |
| -                    | -    | -             |                                                                                                                                                                                                        |  |

| Cross Reference Table |          |               |                              |
|-----------------------|----------|---------------|------------------------------|
| Material              | Standard | Country       | Grade Belong to the Industry |
| Al Mg3                | ISO      | International | Casting                      |
| EN AC-51000           | BS       | British       | Casting                      |
| EN AC-51000           | UNI      | Italy         | Casting                      |
| EN AC-51000           | AFNOR NF | France        | Casting                      |
| EN AC-51000           | UNE      | Spain         | Casting                      |
| EN AC-51000           | SFS      | Finland       | Casting                      |
| EN AC-51000           | BDS      | Bulgaria      | Casting                      |

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