

# Material: ASME EN 1706 AC-41000

## Standard Specification for Aluminium and Aluminium Alloys - Castings

**Group:** Non-Ferrous Aluminium Alloy

**Sub Group:** ASME EN 1706 Aluminium and Aluminium Alloys - Castings

**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 % | 0.600 max.    |                                                                                                                                                                                                          |  |
| Magnesium            | Mg % | 0.450 - 0.650 |                                                                                                                                                                                                          |  |
| Manganese            | Mn % | 0.300 - 0.500 |                                                                                                                                                                                                          |  |
| Nickel               | Ni % | 0.050 max.    |                                                                                                                                                                                                          |  |
| Silicon              | Si % | 1.600 - 2.400 |                                                                                                                                                                                                          |  |
| Lead                 | Pb % | 0.050 max.    |                                                                                                                                                                                                          |  |
| Tin                  | Sn % | 0.050 max.    |                                                                                                                                                                                                          |  |
| Titanium             | Ti % | 0.050 - 0.200 |                                                                                                                                                                                                          |  |
| Zinc                 | Zn % | 0.100 max.    |                                                                                                                                                                                                          |  |
| Other                | Ot%  | 0.150 max.    |                                                                                                                                                                                                          |  |
| Aluminium            | Al % | Balance       | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 140 - 300<br>Yield Strength in Mpa 70 - 230<br>Elongation in % 3 - 10<br>Reduction of Area in % -<br>Hardness in HB 50 - 95<br>Impact in Joule - |  |
| -                    | -    | -             |                                                                                                                                                                                                          |  |
| -                    | -    | -             |                                                                                                                                                                                                          |  |
| -                    | -    | -             |                                                                                                                                                                                                          |  |
| -                    | -    | -             |                                                                                                                                                                                                          |  |

| Cross Reference Table |          |               |                              |
|-----------------------|----------|---------------|------------------------------|
| Material              | Standard | Country       | Grade Belong to the Industry |
| Al Si2MgTi            | ISO      | International | Casting                      |
| EN AC-41000           | DIN      | Germany       | Casting                      |
| EN AC-41000           | SFS      | Finland       | Casting                      |
| EN AC-41000           | BS       | British       | Casting                      |
| EN AC-41000           | UNE      | Spain         | Casting                      |
| EN AC-41000           | UNI      | Italy         | Casting                      |
| EN AC-41000           | BDS      | Bulgaria      | Casting                      |

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