

## Material: AFNOR NF EN 1706 AC-48000

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

**Group:** Non-Ferrous Aluminium Alloy

**Sub Group:** AFNOR NF 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 % | 0.800 - 1.500   | As-Cast or Aging                                                                                                                                                                                                                         |  |
| Iron                 | Fe % | 0.700 max.      |                                                                                                                                                                                                                                          |  |
| Magnesium            | Mg % | 0.800 - 1.500   |                                                                                                                                                                                                                                          |  |
| Manganese            | Mn % | 0.350 max.      |                                                                                                                                                                                                                                          |  |
| Nickel               | Ni % | 0.700 - 1.300   |                                                                                                                                                                                                                                          |  |
| Silicon              | Si % | 10.500 - 13.500 |                                                                                                                                                                                                                                          |  |
| Titanium             | Ti % | 0.250 max.      |                                                                                                                                                                                                                                          |  |
| Zinc                 | Zn % | 0.350 max.      |                                                                                                                                                                                                                                          |  |
| Other                | Ot%  | 0.150 max.      |                                                                                                                                                                                                                                          |  |
| Aluminium            | Al % | Balance         |                                                                                                                                                                                                                                          |  |
| -                    | -    | -               | <b>Mechanical Properties</b><br>Tensile Strength in Mpa      200 - 280<br>Yield Strength in Mpa      140 - 240<br>Elongation in %      1 min.<br>Reduction of Area in %      -<br>Hardness in HB      85 - 100<br>Impact in Joule      - |  |
| -                    | -    | -               |                                                                                                                                                                                                                                          |  |
| -                    | -    | -               |                                                                                                                                                                                                                                          |  |
| -                    | -    | -               |                                                                                                                                                                                                                                          |  |
| -                    | -    | -               |                                                                                                                                                                                                                                          |  |
| -                    | -    | -               |                                                                                                                                                                                                                                          |  |

| Cross Reference Table |          |               |                              |
|-----------------------|----------|---------------|------------------------------|
| Material              | Standard | Country       | Grade Belong to the Industry |
| EN AC-48000           | DIN      | Germany       | Casting                      |
| EN AC-48000           | BS       | British       | Casting                      |
| EN AC-48000           | ASME     | USA           | Casting                      |
| EN AC-48000           | UNI      | Italy         | Casting                      |
| Al Si12CuMgNi         | ISO      | International | Casting                      |
| EN AC-48000           | UNE      | Spain         | Casting                      |
| EN AC-48000           | SFS      | Finland       | Casting                      |

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