



## Material - AS 6061

## **Standard Specification For Aluminium Alloy**

Group - Non-Ferrous Aluminium Alloys Sub Group - AS 6061 Aluminium Alloy

Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries

Grade Belongs to the Industry - Plate, Sheet, Rod, Bar, Wire and Strip

| Chemical Composition |      |               | Heat Treatment                                |                    |
|----------------------|------|---------------|---|--------------------|
| Silicon              | Si % | 0.400 - 0.800 |   |                    |
| Chromium             | Cr % | 0.040 - 0.350 |   |                    |
| Manganese            | Mn % | 0.150 max.    | As Raw or Temper or Solution Treated or Aging |                    |
| Magnesium            | Mg % | 0.800 - 1.200 |   |                    |
| Copper               | Cu % | 0.150 - 0.400 |   |                    |
| Iron                 | Fe % | 0.700 max.    |   |                    |
| Zinc                 | Zn % | 0.250 max.    |   |                    |
| Titanium             | Ti % | 0.150 max.    |   | •                  |
| Other                | Ot % | 1.000 max.    | Mechanical Properties                         |                    |
| Aluminium            | Al % | Balance       | Tensile Strength in Mpa                       | 121.2 - 415        |
| -                    | -    | -             | Yield Strength in Mpa                         | 49 - 305.1         |
| -                    | -    | -             | Elongation in %                               | 4 min.             |
| -                    | -    | -             | Reduction of Area in %                        | 41.835 - 55.904    |
| -                    | -    | -             | Hardness in HB                                | 104 - 106          |
| -                    | -    | -             | Impact in Joule                               | 12.1 - 21.8 J @ RT |

| Cross Reference Table |          |                                      |  |  |
|-----------------------|----------|--------------------------------------|--|--|
| Material              | Standard | Country Grade Belong to the Industry |  |  |
| 6061                  | SAE      | USA                                  | Bar, Rod, Shapes, Tube and Wire, Extrusion |  |
| F901 6061             | ASTM     | USA                                  | Bolt and Nut                               |  |
| SB-210 6061           | ASME     | USA                                  | Tube                                       |  |
| Alclad 6061           | SAE      | USA                                  | Plate and Sheet                            |  |
| A05050                | UNS      | USA                                  | Casting                                    |  |
| A 6061S               | JIS      | Japan                                | Bar, Rod, Shapes, Tube and Wire, Extrusion |  |
| AL-P6061              | UNI      | Italy                                | Tube                                       |  |

Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com

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