



## Material - AMS 8620

## Standard Specification for General Characteristics and Heat Treatments of Steels

**Group - Ferrous Mild Steel Alloys** 

Sub Group - AMS 8620 General Characteristics and Heat Treatments of Steels
Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries
Grade Belongs to the Industry - Bar and Forging

| Chemical Composition |      |               | Heat Treatment                                    |          |
|----------------------|------|---------------|---|----------|
| Carbon               | C %  | 0.180 - 0.230 |   |          |
| Silicon              | Si % | 1.500 - 0.350 | Annealing or Normalising or Hardening + Tempering |          |
| Manganese            | Mn % | 0.700 - 0.900 |   |          |
| Phosphorus           | P %  | 0.035 max.    |   |          |
| Sulphur              | S %  | 0.040 max.    |   |          |
| Chromium             | Cr % | 0.400 - 6.000 |   |          |
| Nickel               | Ni % | 0.400 - 0.700 |   |          |
| Molybdenum           | Mo % | 0.150 - 0.250 |   |          |
| Iron                 | Fe % | Balance       | Mechanical Properties                             |          |
| -                    | -    | -             | Tensile Strength in Mpa                           | 724 min. |
| -                    | -    | -             | Yield Strength in Mpa                             | 586 min. |
| -                    | -    | -             | Elongation in %                                   | 10 min.  |
| -                    | -    | -             | Reduction of Area in %                            | •        |
| -                    | -    | -             | Hardness in BHN                                   | -        |
| -                    | -    | -             | Impact in Joule                                   | -        |

| Cross Reference Table |          |         |   |  |  |
|-----------------------|----------|---------|---|--|--|
| Material              | Standard | Country | Gr <mark>ade Belon</mark> g to the Industry |  |  |
| J12048                | UNS      | USA     | Casting                                     |  |  |
| 8620                  | SAE      | USA     | Bar, Tube, Sheet, Strip and Forging         |  |  |
| 8620                  | AISI     | USA     | Forging, Bar, Wire, and Shape               |  |  |
| A732 13Q              | AISI     | USA     | Casting                                     |  |  |
| J13047                | UNS      | USA     | Casting                                     |  |  |
| A487 4A               | ASTM     | USA     | Casting                                     |  |  |
| A487 4B               | ASTM     | USA     | Casting                                     |  |  |

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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