



## Material - AISI M1044

### Standard Specification For Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Steel

Group - Ferrous Mild Steel Alloys

Sub Group - AISI M1044 Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Steel

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

Grade Belongs to the Industry - Steel

| Chemical Composition  |      |               | Heat Treatment  |          |
|-----------------------|------|---------------|---|----------|
| Carbon                | C %  | 0.400 - 0.500 | As Raw or Annealing or Normalizing or Hardening and Tempering |          |
| Manganese             | Mn % | 0.250 - 0.600 |   |          |
| Phosphorus            | P %  | 0.040 max.    |   |          |
| Sulphur               | S %  | 0.050 max.    |   |          |
| Copper                | Cu % | 0.200 max.    |   |          |
| Iron                  | Fe % | Balance       |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| -                     | -    | -             |   |          |
| Cross Reference Table |      |               | Mechanical Properties   |          |
|                       |      |               | Tensile Strength in Mpa                                       | 550 min. |
|                       |      |               | Yield Strength in Mpa   | 300 min. |
|                       |      |               | Elongation in %   | 16 min.  |
|                       |      |               | Reduction of Area in %  | 40 min.  |
|                       |      |               | Hardness in HB  | 163 max. |
|                       |      |               | Impact in Joule   | -        |

| Cross Reference Table |          |         |   |
|-----------------------|----------|---------|---|
| Material              | Standard | Country | Grade Belong to the Industry                      |
| G10440                | SAE      | USA     | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |
| 1044                  | SAE      | USA     | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |
| 1044                  | AISI     | USA     | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |
| M1044                 | SAE      | USA     | Steel   |
| A 1040 1044           | ASTM     | USA     | Steel   |
| A 29 1044             | ASTM     | USA     | Steel and Bar                                     |
| A 575 M1044           | ASTM     | USA     | Steel and Bar                                     |

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

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