

## Material - ASTM A 684 Grade 1050

**Standard Specification For Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Steel and Strip**

**Group - Ferrous Mild Steel Alloys**

**Sub Group - ASTM A 684 Grade 1050 Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Steel and Strip**

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

**Grade Belongs to the Industry - Steel and Strip**

| Chemical Composition |      |               | Heat Treatment                                                                                                                                                                                          |  |
|----------------------|------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Carbon               | C %  | 0.480 - 0.550 | As Raw or Annealing or Normalizing or Hardening and Tempering                                                                                                                                           |  |
| Manganese            | Mn % | 0.600 - 0.900 |                                                                                                                                                                                                         |  |
| Phosphorus           | P %  | 0.030 max.    |                                                                                                                                                                                                         |  |
| Sulphur              | S %  | 0.050 max.    |                                                                                                                                                                                                         |  |
| Chromium             | Cr % | 0.250 max.    |                                                                                                                                                                                                         |  |
| Copper               | Cu % | 0.300 max.    |                                                                                                                                                                                                         |  |
| Silicon              | Si % | 0.150 - 0.300 |                                                                                                                                                                                                         |  |
| Nickel               | Ni % | 0.300 max.    |                                                                                                                                                                                                         |  |
| Molybdenum           | Mo % | 0.100 max.    |                                                                                                                                                                                                         |  |
| Iron                 | Fe % | Balance       |                                                                                                                                                                                                         |  |
| -                    | -    | -             | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 795 min.<br>Yield Strength in Mpa 690 min.<br>Elongation in % 7 min.<br>Reduction of Area in % 20 min.<br>Hardness in HB -<br>Impact in Joule - |  |
| -                    | -    | -             |                                                                                                                                                                                                         |  |
| -                    | -    | -             |                                                                                                                                                                                                         |  |
| -                    | -    | -             |                                                                                                                                                                                                         |  |
| -                    | -    | -             |                                                                                                                                                                                                         |  |
| -                    | -    | -             |                                                                                                                                                                                                         |  |

| Cross Reference Table |          |         |                                                   |
|-----------------------|----------|---------|---------------------------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry                      |
| G10500                | UNS      | USA     | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |
| 1050                  | SAE      | USA     | Steel, Sheet, Strip and Plate                     |
| 1050                  | AISI     | USA     | Steel, Sheet, Strip and Plate                     |
| A 311 1050 Class A    | ASTM     | USA     | Steel and Bar                                     |
| A 311 1050 Class B    | ASTM     | USA     | Steel and Bar                                     |
| A 513 Grade 1050      | ASTM     | USA     | Steel and Tubing                                  |
| A 108 Grade 1050      | ASTM     | USA     | Steel and Bar                                     |

**For any further inquiries, please do not hesitate to contact us. You may visit our website at [AMTECH TECHNOCAST PVT. LTD.](http://AMTECH TECHNOCAST PVT. LTD.), call us at [+91 9879817994](tel:+919879817994), or email us at [manish@amtechtechnocast.com](mailto:manish@amtechtechnocast.com)**

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