

## Material: SAE 1527

### Standard Specification For Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Plate, Strip, Sheets and Tubing

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** SAE 1527 Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Plate, Strip, Sheets and Tubing

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

**Grade Belongs to the Industry:** Plate, Strip, Sheets and Tubing

| Chemical Composition |      |                | Heat Treatment  |  |
|----------------------|------|----------------|---|--|
| Carbon               | C %  | 0.220 - 0.290  | As Raw or Annealing or Normalizing or Hardening and Tempering   |  |
| Manganese            | Mn % | 1.200 - 1.500  |   |  |
| Phosphorus           | P %  | 0.030 max.     |   |  |
| Sulphur              | S %  | 0.035 max.     |   |  |
| Boron                | B %  | 0.0005 - 0.003 |   |  |
| Chromium             | Cr % | 0.150 max.     |   |  |
| Copper               | Cu % | 0.200 max.     |   |  |
| Molybdenum           | Mo % | 0.060 max.     |   |  |
| Nickel               | Ni % | 0.200 max.     |   |  |
| Lead                 | Pb % | 0.150 - 0.350  |   |  |
| Iron                 | Fe % | Balance        | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 520 - 570<br>Yield Strength in Mpa 280 min.<br>Elongation in % 12 min.<br>Reduction of Area in % 35 - 40<br>Hardness in HB 149 - 163<br>Impact in Joule - |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |

| Cross Reference Table |          |         |   |
|-----------------------|----------|---------|---|
| Material              | Standard | Country | Grade Belong to the Industry                      |
| G15270                | UNS      | USA     | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |
| 1527                  | AISI     | USA     | Steel   |
| A 29 1527             | ASTM     | USA     | Steel and Bar                                     |
| A 510 1527            | ASTM     | USA     | Wire Rod, Round Wire and Steel                    |
| A 576 15L27           | ASTM     | USA     | Steel and Bar                                     |
| A 830 1527            | ASTM     | USA     | Plate and Steel                                   |
| A 830 G15270          | ASTM     | USA     | Plate and Steel                                   |

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