

## Material: ASTM A 510 1005

### Standard Specification for General Requirements for Wire Rods and Coarse Round Wire, Carbon Steel

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** ASTM A 510 1005 General Requirements for Wire Rods, Coarse Round Wire and Carbon Steel

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

**Grade Belongs to the Industry:** Wire Rod

| Chemical Composition |      |             | Heat Treatment  |  |
|----------------------|------|-------------|---|--|
| Carbon               | C %  | 0.060 max.  | As Raw or Annealing or Normalizing or Hardening and Tempering   |  |
| Manganese            | Mn % | 0.350 max.  |   |  |
| Phosphorus           | P %  | 0.040 max.  |   |  |
| Sulphur              | S %  | 0.050 max.  |   |  |
| Boron                | B %  | 0.0008 max. |   |  |
| Iron                 | Fe % | Balance     |   |  |
| -                    | -    | -           | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 270 - 330<br>Yield Strength in Mpa 140 - 180<br>Elongation in % 40 min.<br>Reduction of Area in % -<br>Hardness in BHN -<br>Impact in Joule - |  |
| -                    | -    | -           |   |  |
| -                    | -    | -           |   |  |
| -                    | -    | -           |   |  |
| -                    | -    | -           |   |  |
| -                    | -    | -           |   |  |
| -                    | -    | -           |   |  |
| -                    | -    | -           |   |  |
| -                    | -    | -           |   |  |
| -                    | -    | -           |   |  |

| Cross Reference Table |          |           |   |
|-----------------------|----------|-----------|---|
| Material              | Standard | Country   | Grade Belong to the Industry                      |
| G10050                | UNS      | USA       | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |
| 1005                  | SAE      | USA       | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |
| 1005                  | AISI     | USA       | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |
| A 29 1005             | ASTM     | USA       | Bar   |
| A 1040 1005           | ASTM     | USA       | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |
| 1.03                  | ONORM    | Australia | Wire Rod  |
| 1.0312                | ONORM    | Australia | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |

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