



Material - AMS 1045

Standard Specification for General Requirements for Steel Bars, Carbon and Alloy

Group - Ferrous Mild Steel Alloys

Sub Group - AMS 1045 General Requirements for Steel Bars, Carbon and Alloy

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

Grade Belongs to the Industry - Bar, Wire, Tube and Forging

| Chemical Composition | | | Heat Treatment | |
|----------------------|------|---------------|---|--|
| Carbon | C % | 0.430 - 0.500 | As- Cast or Normalising or Annealing or Hardening + Tempering | |
| Silicon | Si % | 0.080 - 0.600 | | |
| Manganese | Mn % | 0.600 - 0.900 | | |
| Phosphorus | P % | 0.040 max. | | |
| Sulphur | S % | 0.050 max. | | |
| Chromium | Cr % | 0.300 max. | | |
| Nickel | Ni % | 0.350 min. | | |
| Molybdenum | Mo % | 0.100 max. | | |
| Copper | Cu % | 0.350 max. | | |
| Iron | Fe % | Balance | | |
| - | - | - | Mechanical Properties Tensile Strength in Mpa 570 - 862 Yield Strength in Mpa 310 min. Elongation in % 10 min. Reduction of Area in % 35 - 45 Hardness in HB 163 - 321 Impact in Joule - | |
| - | - | - | | |
| - | - | - | | |
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| Cross Reference Table | | | |
|-----------------------|----------|-----------|------------------------------|
| Material | Standard | Country | Grade Belong to the Industry |
| A915 Grade SC 1045 | ASTM | USA | Casting |
| J04502 | UNS | USA | Bar, Wire, Tube and Forging |
| 1045 | AISI | USA | Bar, Wire, Tube and Forging |
| 1045 | AS | Australia | Bar, Wire, Tube and Forging |
| 1045 | SAE | USA | Bar, Wire, Tube and Forging |
| A 108 1045 | ASTM | USA | Bar, Wire, Tube and Forging |
| A 29 1045 | ASTM | USA | Bar, Wire, Tube and Forging |

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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