



## Material - AFNOR NF 10 CrMo 9-10

**Standard Specification for Flat Products for Pressure Purpose (Elevated Temperatures)**

**Group - Ferrous Mild Steel Alloys**

**Sub Group - AFNOR NF 10 CrMo 9-10 Flat Products for Pressure Purpose (Elevated Temperatures)**

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

**Grade Belongs to the Industry - Steel**

| Chemical Composition |      |               | Heat Treatment                                    |           |
|----------------------|------|---------------|---|-----------|
| Carbon               | C %  | 0.800 - 0.140 | Normalising or Annealing or Hardening + Tempering |           |
| Silicon              | Si % | 0.500 max.    |   |           |
| Manganese            | Mn % | 0.400 - 0.800 |   |           |
| Phosphorus           | P %  | 0.030 max.    |   |           |
| Sulphur              | S %  | 0.025 max.    |   |           |
| Chromium             | Cr % | 2.000 - 2.500 |   |           |
| Molybdenum           | Mo % | 0.900 - 1.100 |   |           |
| Nickel               | Ni % | 0.500 max.    |   |           |
| Iron                 | Fe % | Balance       |   |           |
| -                    | -    | -             | Mechanical Properties                             |           |
| -                    | -    | -             | Tensile Strength in Mpa                           | 450 - 630 |
| -                    | -    | -             | Yield Strength in Mpa                             | 250 min.  |
| -                    | -    | -             | Elongation in %                                   | 17 min.   |
| -                    | -    | -             | Reduction of Area in %                            | -         |
| -                    | -    | -             | Hardness in BHN                                   | -         |
| -                    | -    | -             | Impact in Joule                                   | 27 J @ RT |

| Cross Reference Table |          |                |                              |
|-----------------------|----------|----------------|------------------------------|
| Material              | Standard | Country        | Grade Belong to the Industry |
| SA-217 WC9            | ASME     | USA            | Casting                      |
| J21890                | UNS      | USA            | Casting                      |
| 10 CrMo 9-10          | DIN      | Germany        | Forging                      |
| 10 CrMo 9-10          | EN       | European Union | Casting                      |
| 10 CrMo 9-10          | UNI      | Italy          | Casting                      |
| 622                   | BS       | British        | British                      |
| A217 Grade WC9        | ASTM     | USA            | Casting                      |

**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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