

## Material - ASTM A757 Grade B4N B4Q

Standard Specification for Steel Castings, Ferritic and Martensitic, for Pressure-Containing and Other Applications, for Low-Temperature Service

Group - Ferrous Mild Steel Alloys

Sub Group - ASTM A757 / A757M Steel Castings, Ferritic and Martensitic, for Pressure-Containing and Other Applications, for Low-Temperature Service

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

Grade Belongs to the Industry - Casting

| Chemical Composition |      |               | Heat Treatment                                    |                  |
|----------------------|------|---------------|---------------------------------------------------|------------------|
| Carbon               | C %  | 0.150 max.    | Normalising or Annealing or Hardening + Tempering |                  |
| Silicon              | Si % | 0.600 max.    |                                                   |                  |
| Manganese            | Mn % | 0.500 - 0.800 |                                                   |                  |
| Phosphorus           | P %  | 0.025 max.    |                                                   |                  |
| Sulphur              | S %  | 0.025 max.    |                                                   |                  |
| Chromium             | Cr % | 0.400 max.    |                                                   |                  |
| Nickel               | Ni % | 4.000 - 5.000 |                                                   |                  |
| Molybdenum           | Mo % | 0.250 max.    |                                                   |                  |
| Vanadium             | V %  | 0.030 max.    | Mechanical Properties                             |                  |
| Copper               | Cu % | 0.500 max.    | Tensile Strength in Mpa                           | 485 min.         |
| Other                | Ot % | 1.000 max.    | Yield Strength in Mpa                             | 275 min.         |
| Iron                 | Fe % | Balance       | Elongation in %                                   | 24 min.          |
| -                    | -    | -             | Reduction of Area in %                            | 35 min.          |
| -                    | -    | -             | Hardness in BHN                                   | -                |
| -                    | -    | -             | Impact in Joule                                   | 20 min. @ -115°C |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| GX 10 Ni 5            | DIN      | Germany | Casting                      |
| Ao 10 Ni 20           | MSZ      | Hungary | Casting                      |
| 2512                  | SAE      | USA     | Steel                        |
| AM 8 Ni 18            | UNE      | Spain   | Casting                      |
| J41501                | UNS      | USA     | Casting                      |
| 1.5681                | DIN      | Germany | Casting                      |
| E2512                 | AISI     | USA     | Wire, Rod, Tube and Forging  |

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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