## Material - AISI 4422

Standard Specification for Structural and Constructional Steels Bar
Group - Ferrous Mild Steel Alloys
Sub Group - AISI 4422 Structural and Constructional Steels Bar
Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries
Grade Belongs to the Industry - Bar

| Chemical Composition |  |  |
| :---: | :---: | :---: |
| Carbon | $\mathrm{C} \%$ | $0.200-0.250$ |
| Silicon | $\mathrm{Si} \%$ | $0.150-0.350$ |
| Manganese | $\mathrm{Mn} \%$ | $0.700-0.900$ |
| Phosphorus | $\mathrm{P} \%$ | 0.035 max. |
| Sulphur | $\mathrm{S} \%$ | 0.040 max. |
| Molybdenum | $\mathrm{Mo} \%$ | $0.350-0.450$ |
| Aluminium | $\mathrm{Al} \%$ | 0.020 max. |
| Copper | $\mathrm{Cu} \%$ | 0.350 max. |
| Niobium | $\mathrm{Nb} \%$ | 0.025 max. |
| Vanadium | $\mathrm{V} \%$ | 0.050 max. |
| Iron | $\mathrm{Fe} \%$ | Balance |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |


| Heat Treatment |
| :---: |
| Normalising + Tempering or Hardening + Tempering |
|  |


| Mechanical Properties |  |
| :---: | :---: |
| Tensile Strength in Mpa | - |
| Yield Strength in Mpa | - |
| Elongation in $\%$ | - |
| Reduction of Area in \% | - |
| Hardness in BHN | $170-212$ |
| Impact in Joule | - |


| Cross Reference Table |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Material | Standard | Country | Grade Belong to the Industry |  |
| SA-352 Grade LC1 | ASME | USA | Casting |  |
| J12522 | UNS | USA | Casting |  |
| G20Mo5 | DIN | Germany | Casting |  |
| $243-430$ | BS | British | Forging |  |
| SCPL 11 | JIS | Japan | Casting |  |
| G18Mo5 | UNI | Italy | Casting |  |
| A352 LC1 | ASTM | USA | Casting |  |
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