

## Material: DIN 1.1118

### Standard Specification for Steel Castings for Pressure Purposes

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** DIN 1.1118 Steel Castings for Pressure Purposes

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

**Grade Belongs to the Industry:** Casting

| Chemical Composition |      |               |
|----------------------|------|---------------|
| Carbon               | C %  | 0.200 - 0.250 |
| Silicon              | Si % | 0.600 max.    |
| Manganese            | Mn % | 1.500 - 1.800 |
| Phosphorus           | P %  | 0.020 max.    |
| Sulphur              | S %  | 0.015 max.    |
| Chromium             | Cr % | 0.300 max.    |
| Nickel               | Ni % | 0.400 max.    |
| Molybdenum           | Mo % | 0.150 max.    |
| Copper               | Cu % | 0.300 max.    |
| Vanadium             | V %  | 0.050 max.    |
| Iron                 | Fe % | Balance       |
| -                    | -    | -             |
| -                    | -    | -             |
| -                    | -    | -             |
| -                    | -    | -             |

| Heat Treatment                                    |
|---------------------------------------------------|
| Normalizing or Annealing or Hardening + Tempering |

| Mechanical Properties   |           |
|-------------------------|-----------|
| Tensile Strength in Mpa | 600 - 800 |
| Yield Strength in Mpa   | 400 min.  |
| Elongation in %         | 12 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 |
| 1.1118                | EN       | European Union | Casting                      |
| 1.1119                | EN       | European Union | Casting                      |
| 1.1119                | DIN      | Germany        | Casting                      |
| GS-24Mn6              | DIN      | Germany        | Casting                      |
| GS-23Mn6              | DIN      | Germany        | Casting                      |
| G23 Mn6               | EN       | European Union | Casting                      |
| GS-24Mn6              | EN       | European Union | Casting                      |

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