



## Material - DIN 1.8872

### Standard Specification for Flat Products for Pressure Purposes

Group - Ferrous Mild Steel Alloys

Sub Group - DIN 1.8872 Flat Products for Pressure Purposes

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

Grade Belongs to the Industry - Steel

| Chemical Composition |      |               | Heat Treatment                                    |           |
|----------------------|------|---------------|---|-----------|
| Carbon               | C %  | 0.180 max.    | Normalising or Annealing or Hardening + Tempering |           |
| Silicon              | Si % | 0.500 max.    |   |           |
| Manganese            | Mn % | 1.100 - 1.700 |   |           |
| Phosphorus           | P %  | 0.020 max.    |   |           |
| Sulphur              | S %  | 0.008 max.    |   |           |
| Chromium             | Cr % | 0.500 max.    |   |           |
| Nickel               | Ni % | 1.000 max.    |   |           |
| Molybdenum           | Mo % | 0.500 max.    |   |           |
| Vanadium             | V %  | 0.150 min.    |   |           |
| Titanium             | Ti % | 0.030 max.    |   |           |
| Niobium              | Nb % | 0.050 max.    | Mechanical Properties                             |           |
| Zirconium            | Zr % | 0.050 max.    | Tensile Strength in Mpa                           | 550 - 730 |
| Aluminium            | Al % | 0.020 max.    | Yield Strength in Mpa                             | 380 min.  |
| Copper               | Cu % | 0.300 max.    | Elongation in %                                   | 17 min.   |
| Iron                 | Fe % | Balance       | Reduction of Area in %                            | -         |
|                      |      |               | Hardness in BHN                                   | -         |
|                      |      |               | Impact in Joule                                   | 40 J @ RT |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| J12523                | UNS      | USA     | Casting                      |
| 16 Mo 5               | STAS     | Romania | Plate                        |
| 245                   | BS       | British | Casting                      |
| C 1                   | MSZ      | Hungary | Steel                        |
| FS 12 MD 4            | AFNOR NF | France  | Wire, Rod and Coil           |
| G18Mo5                | UNI      | Italy   | Casting                      |
| A356 2                | 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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