

## Material: DIN 1.4955

### Standard Specification for Steel Castings for Pressure Purposes

**Group:** Ferrous Stainless Steel Alloys

**Sub Group:** DIN 1.4955 Steel Castings for Pressure Purposes

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

**Grade Belongs to the Industry:** Casting

| Chemical Composition |      |               | Heat Treatment                                    |           |
|----------------------|------|---------------|---------------------------------------------------|-----------|
| Carbon               | C %  | 0.100 - 0.140 | Normalizing or Annealing or Hardening + Tempering |           |
| Silicon              | Si % | 0.200 - 0.500 |                                                   |           |
| Manganese            | Mn % | 0.300 - 0.800 |                                                   |           |
| Phosphorus           | P %  | 0.020 max.    |                                                   |           |
| Sulphur              | S %  | 0.010 max.    |                                                   |           |
| Chromium             | Cr % | 8.000 - 9.500 |                                                   |           |
| Nickel               | Ni % | 0.400 max.    |                                                   |           |
| Molybdenum           | Mo % | 0.850 - 1.050 |                                                   |           |
| Nitrogen             | N %  | 0.030 - 0.070 | Mechanical Properties                             |           |
| Vanadium             | V %  | 0.180 - 0.250 | Tensile Strength in Mpa                           | 600 - 750 |
| Aluminium            | Al % | 0.020 max.    | Yield Strength in Mpa                             | 460 min.  |
| Niobium              | Nb % | 0.060 - 0.100 | Elongation in %                                   | 15 min.   |
| Iron                 | Fe % | Balance       | Reduction of Area in %                            | -         |
| -                    | -    | -             | Hardness in BHN                                   | -         |
| -                    | -    | -             | Impact in Joule                                   | 27 J @ RT |

| Cross Reference Table |          |                |                              |
|-----------------------|----------|----------------|------------------------------|
| Material              | Standard | Country        | Grade Belong to the Industry |
| J8409                 | UNS      | USA            | Casting                      |
| 1.4955                | EN       | European Union | Casting                      |
| 1.4955                | DIN      | Germany        | Casting                      |
| GX12CrMoVNbN9-1       | EN       | European Union | Casting                      |
| GX12CrMoVNbN9-1       | UNI      | Italy          | Casting                      |
| GX12CrMoVNbN9-1       | DIN      | Germany        | Casting                      |
| GX12CrMoVNbN9-1       | AFNOR NF | France         | Casting                      |

**Disclaimer:** All information displayed in our data sheets are for reference purpose only and are sole property of their respective owners. Information and or material are used for educational purposes only. Data at actual may vary at actual and case to case basis. ICAST Alloys LLP does not guarantee validity of these parameters. Warranties and liabilities are exclusive to our terms and conditions of business.

Customer Care: +91-99090 45075 Email: [info@icastllp.com](mailto:info@icastllp.com)