

## Material: ISO 1.4107

### Standard Specification for Steel Castings for Pressure Purposes

**Group:** Ferrous Stainless Steel Alloys

**Sub Group:** ISO 1.4107 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 max.      | Normalizing or Quenching or Solution Annealing                                                                                                                                                               |  |
| Silicon              | Si % | 0.400 max.      |                                                                                                                                                                                                              |  |
| Manganese            | Mn % | 0.500 - 0.800   |                                                                                                                                                                                                              |  |
| Phosphorus           | P %  | 0.030 max.      |                                                                                                                                                                                                              |  |
| Sulphur              | S %  | 0.020 max.      |                                                                                                                                                                                                              |  |
| Chromium             | Cr % | 11.500 - 12.500 |                                                                                                                                                                                                              |  |
| Molybdenum           | Mo % | 0.500 max.      |                                                                                                                                                                                                              |  |
| Nickel               | Ni % | 0.800 - 1.500   |                                                                                                                                                                                                              |  |
| Copper               | Cu % | 0.300 max.      |                                                                                                                                                                                                              |  |
| Vanadium             | V %  | 0.800 max.      |                                                                                                                                                                                                              |  |
| Iron                 | Fe % | Balance         | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 540 - 800<br>Yield Strength in Mpa 355 min.<br>Elongation in % 16 min.<br>Reduction of Area in % -<br>Hardness in BHN -<br>Impact in Joule 40 J @ RT |  |
| -                    | -    | -               |                                                                                                                                                                                                              |  |
| -                    | -    | -               |                                                                                                                                                                                                              |  |
| -                    | -    | -               |                                                                                                                                                                                                              |  |
| -                    | -    | -               |                                                                                                                                                                                                              |  |
| -                    | -    | -               |                                                                                                                                                                                                              |  |

| Cross Reference Table |          |               |                              |
|-----------------------|----------|---------------|------------------------------|
| Material              | Standard | Country       | Grade Belong to the Industry |
| EN 10213 GX8CrNi12    | BS       | British       | Plate, Tubes and Forging     |
| GX8CrNi12-1           | ISO      | International | Casting                      |
| SCS 1                 | JIS      | Japan         | Casting                      |
| GX 8 CrNi 12          | ONORM    | Australia     | Casting                      |
| 1.4107                | ONORM    | Australia     | Casting                      |
| GX 8 CrNi 12          | NBN      | Belgium       | Casting                      |
| 1.4107                | NBN      | Belgium       | Casting                      |

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