

## Material: ASTM A240 UNS S20103

### Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications

**Group:** Ferrous Stainless Steel Alloys

**Sub Group:** ASTM A240 Chromium and Chromium-Nickel Stainless Steel for Pressure Vessels and for General Applications

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

**Belongs to the Industry:** Steel, Plate, Sheet and Strip

| Chemical Composition |      |                 | Heat Treatment                                                                                                                                                                                            |  |
|----------------------|------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Carbon               | C %  | 0.030 max.      | Solution Annealing                                                                                                                                                                                        |  |
| Silicon              | Si % | 0.750 max.      |                                                                                                                                                                                                           |  |
| Manganese            | Mn % | 5.500 - 7.500   |                                                                                                                                                                                                           |  |
| Phosphorus           | P %  | 0.045 max.      |                                                                                                                                                                                                           |  |
| Sulphur              | S %  | 0.030 max.      |                                                                                                                                                                                                           |  |
| Chromium             | Cr % | 16.000 - 18.000 |                                                                                                                                                                                                           |  |
| Nickel               | Ni % | 3.500 - 5.500   |                                                                                                                                                                                                           |  |
| Nitrogen             | N %  | 0.250 max.      |                                                                                                                                                                                                           |  |
| Iron                 | Fe % | Balance         | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 655 min.<br>Yield Strength in Mpa 260 min.<br>Elongation in % 40 min.<br>Reduction of Area in % -<br>Hardness in HB 217 max.<br>Impact in Joule - |  |
| -                    | -    | -               |                                                                                                                                                                                                           |  |
| -                    | -    | -               |                                                                                                                                                                                                           |  |
| -                    | -    | -               |                                                                                                                                                                                                           |  |
| -                    | -    | -               |                                                                                                                                                                                                           |  |
| -                    | -    | -               |                                                                                                                                                                                                           |  |
| -                    | -    | -               |                                                                                                                                                                                                           |  |

| Cross Reference Table |          |                |                               |
|-----------------------|----------|----------------|-------------------------------|
| Material              | Standard | Country        | Grade Belong to the Industry  |
| 1.4372                | DIN      | Germany        | Steel                         |
| SUS 201               | JIS      | Japan          | Steel, Wire and Forging       |
| X12CrMnNiN17-7-5      | AFNOR NF | France         | Steel                         |
| X12CrMnNiN17-7-5      | DIN      | Germany        | Steel                         |
| X12CrMnNiN17-7-5      | UNI      | Italy          | Steel, Sheet, Plate and Strip |
| X12CrMnNiN17 7 5      | EN       | European Union | Steel                         |
| 201                   | SAE      | USA            | Steel                         |

**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)