

## Material - ASTM A959 S32050

**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 A959 UNS S32050 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 % | 1.000 max.      |                         |          |
| Manganese            | Mn % | 1.500 max.      |                         |          |
| Phosphorus           | P %  | 0.035 max.      |                         |          |
| Sulphur              | S %  | 0.020 max.      |                         |          |
| Chromium             | Cr % | 22.000 - 24.000 |                         |          |
| Nickel               | Ni % | 20.000 - 23.000 |                         |          |
| Molybdenum           | Mo % | 6.000 - 6.800   | Mechanical Properties   |          |
| Nitrogen             | N %  | 0.210 - 0.320   |                         |          |
| Copper               | Cu % | 0.400 max.      |                         |          |
| Iron                 | Fe % | Balance         |                         |          |
| -                    | -    | -               |                         |          |
| -                    | -    | -               |                         |          |
| -                    | -    | -               |                         |          |
| -                    | -    | -               |                         |          |
| -                    | -    | -               |                         |          |
|                      |      |                 |                         |          |
|                      |      |                 | Tensile Strength in Mpa | 675 min. |
|                      |      |                 | Yield Strength in Mpa   | 330 min. |
|                      |      |                 | Elongation in %         | 40 min.  |
|                      |      |                 | Reduction of Area in %  | -        |
|                      |      |                 | Hardness in BHN         | 256 max. |
|                      |      |                 | Impact in Joule         | -        |

| Cross Reference Table |          |         |                                           |
|-----------------------|----------|---------|-------------------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry              |
| A240 UNS S32050       | ASTM     | USA     | Steel, Plate, Sheet and Strip             |
| A240 S32050           | ASTM     | USA     | Plate, Sheet and Strip                    |
| A213 S32050           | ASTM     | USA     | Tubes for Superheaters and Heat Exchanges |
| A358 S32050           | ASTM     | USA     | Pipes                                     |
| A249 S32050           | ASTM     | USA     | Tubes for Superheaters and Heat Exchanges |
| S32050                | UNS      | USA     | Plate, Sheet and Strip                    |
| -                     | -        | -       | -                                         |

**For any further inquiries, please do not hesitate to contact us. You may visit our website at [AMTECH TECHNOCAST PVT. LTD.](http://AMTECH TECHNOCAST PVT. LTD.), call us at +91 9879817994, or email us at [manish@amtechtechnocast.com](mailto:manish@amtechtechnocast.com)**

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