

## Material - ASTM A240 UNS S20161

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 %  | 0.150 max.      | Solution Annealing      |          |
| Silicon              | Si % | 3.000 - 4.000   |                         |          |
| Manganese            | Mn % | 4.000 - 6.000   |                         |          |
| Phosphorus           | P %  | 0.040 max.      |                         |          |
| Sulphur              | S %  | 0.040 max.      |                         |          |
| Chromium             | Cr % | 15.000 - 18.000 |                         |          |
| Nickel               | Ni % | 4.000 - 6.000   |                         |          |
| Nitrogen             | N %  | 0.080 - 0.200   |                         |          |
| Iron                 | Fe % | Balance         | Mechanical Properties   |          |
| -                    | -    | -               | Tensile Strength in Mpa | 860 min. |
| -                    | -    | -               | Yield Strength in Mpa   | 345 min. |
| -                    | -    | -               | Elongation in %         | 40 min.  |
| -                    | -    | -               | Reduction of Area in %  | -        |
| -                    | -    | -               | Hardness in HB          | 255 max. |
| -                    | -    | -               | Impact in Joule         | -        |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| S10161                | UNS      | USA     | Steel                        |
| A276 S20161           | ASTM     | USA     | Steel, Bar and Shape         |
| A479 S20161           | ASTM     | USA     | Steel and Bar                |
| A959 S20161           | ASTM     | USA     | Steel                        |
| SA-240 UNS S20161     | ASME     | USA     | Steel                        |
| SA-276 S20161         | ASME     | USA     | Steel, Bar and Shape         |
| SA-479 UNS S20161     | ASME     | USA     | Steel and Bar                |

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](tel:+919879817994), or email us at [manish@amtechtechnocast.com](mailto:manish@amtechtechnocast.com)

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