

## Material - ASME SA-276 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 - ASME SA-276 S20161 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, Bar and Shapes

| Chemical Composition |      |                 | Heat Treatment                |          |
|----------------------|------|-----------------|-------------------------------|----------|
| Carbon               | C %  | 0.150 max.      | Solution Annealing            |          |
| Silicon              | Si % | 3.000 - 4.000   |                               |          |
| Manganese            | Mn % | 4.000 - 6.000   |                               |          |
| Phosphorus           | Р%   | 0.045 max.      |                               |          |
| Sulphur              | S %  | 0.040 max.      |                               |          |
| Chromium             | Cr % | 15.000 - 18.000 |                               |          |
| Nickel               | Ni % | 4.000 - 6000    |                               |          |
| 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 %        | 40 min.  |
| -                    | -    | -               | Hardn <mark>ess in HB</mark>  | 255 max. |
| -                    | -    | -               | Impac <mark>t in Joule</mark> | -        |
|                      |      | -               |                               |          |

| Cross Reference Table |          |                                      |                               |  |
|-----------------------|----------|--------------------------------------|-------------------------------|--|
| Material              | Standard | Country Grade Belong to the Industry |                               |  |
| A240 UNS S20161       | ASTM     | USA                                  | Steel, Plate, Sheet and Strip |  |
| S20161                | UNS      | USA                                  | Steel                         |  |
| A276 S20161           | ASTM     | USA                                  | Steel, Bar and Shapes         |  |
| A479 S20161           | ASTM     | USA                                  | Steel and Bar                 |  |
| A959 S20161           | ASTM     | USA                                  | Steel                         |  |
| SA-240 UNS S20161     | ASME     | USA                                  | Steel                         |  |
| SA-479 UNS S20161     | ASME     | USA                                  | Steel and Bar                 |  |

## Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com

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