



## Material - UNS S40945

**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 - UNS 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**

| Chemical Composition |      |                 | Heat Treatment                     |          |
|----------------------|------|-----------------|------------------------------------|----------|
| Carbon               | C %  | 0.030 max.      | Annealing or Hardening + Tempering |          |
| Silicon              | Si % | 1.000 max.      |                                    |          |
| Manganese            | Mn % | 1.000 max.      |                                    |          |
| Phosphorus           | P %  | 0.040 max.      |                                    |          |
| Sulphur              | S %  | 0.030 max.      |                                    |          |
| Chromium             | Cr % | 10.500 - 11.700 |                                    |          |
| Nickel               | Ni % | 0.500 max.      |                                    |          |
| Nitrogen             | N %  | 0.030 max.      |                                    |          |
| Titanium             | Ti % | 0.050 - 0.200   |                                    |          |
| Niobium              | Nb % | 0.180 - 0.400   |                                    |          |
| Iron                 | Fe % | Balance         | <b>Mechanical Properties</b>       |          |
| -                    | -    | -               | Tensile Strength in Mpa            | 380 min. |
| -                    | -    | -               | Yield Strength in Mpa              | 205 min. |
| -                    | -    | -               | Elongation in %                    | 22 min.  |
| -                    | -    | -               | Reduction of Area in %             | -        |
| -                    | -    | -               | Hardness in BHN                    | -        |
| -                    | -    | -               | Impact in Joule                    | -        |

| Cross Reference Table |          |         |                               |
|-----------------------|----------|---------|-------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry  |
| A240 UNS S40910       | ASTM     | USA     | Steel, Plate, Sheet and Strip |
| S40910                | UNS      | USA     | Steel                         |
| S40920                | UNS      | USA     | Steel                         |
| S40930                | UNS      | USA     | Steel                         |
| S40975                | UNS      | USA     | Steel                         |
| S40977                | UNS      | USA     | Steel                         |
| A959 S40975           | UNS      | USA     | Steel                         |

**Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email [marketing@gravitycastindia.com](mailto:marketing@gravitycastindia.com)**

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