

## Material - ASTM A 743 J92710

### Standard Specification for Steel Castings for Pressure Purposes

Group - Ferrous Stainless Steel Alloys

Sub Group - ASTM A 743 J92710 Steel Castings for Pressure Purposes

Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries

Grade Belongs to the Industry - Casting

| Chemical Composition |             |                 | Heat Treatment                                 |                    |
|----------------------|-------------|-----------------|------------------------------------------------|--------------------|
| Carbon               | C %         | 0.080 max.      | Normalizing or Quenching or Solution Annealing |                    |
| Silicon              | Si %        | 2.000 max.      |                                                |                    |
| Manganese            | Mn %        | 1.500 max.      |                                                |                    |
| Phosphorus           | P %         | 0.040 max.      |                                                |                    |
| Sulphur              | S %         | 0.040 max.      |                                                |                    |
| Chromium             | Cr %        | 18.000 - 21.000 |                                                |                    |
| Nickel               | Ni %        | 9.000 - 12.000  |                                                |                    |
| Nb + Ta              | Nb % + Ta % | 1.100 max.      |                                                |                    |
| Niobium              | Nb %        | 1.000 max.      |                                                |                    |
| Iron                 | Fe %        | Balance         | Mechanical Properties                          |                    |
| -                    | -           | -               | Tensile Strength in Mpa                        | 485 min.           |
| -                    | -           | -               | Yield Strength in Mpa                          | 205 min.           |
| -                    | -           | -               | Elongation in %                                | 30 min.            |
| -                    | -           | -               | Reduction of Area in %                         | -                  |
| -                    | -           | -               | Hardness in BHN                                | -                  |
| -                    | -           | -               | Impact in Joule                                | 25.1 - 60.4 J @ RT |

| Cross Reference Table |          |               |                              |
|-----------------------|----------|---------------|------------------------------|
| Material              | Standard | Country       | Grade Belong to the Industry |
| GX5CrNiNb19-11        | BS       | British       | Plate, Tubes and Forging     |
| GX5CrNiNb19-11        | ISO      | International | Casting                      |
| 1.4552                | ISO      | International | Casting                      |
| A 743 Grade CF-8C     | ASTM     | USA           | Casting                      |
| A 744 Grade CF-8C     | ASTM     | USA           | Casting                      |
| SCS 21                | JIS      | Japan         | Casting                      |
| GX5CrNiNb19-11        | AFNOR NF | France        | Casting                      |

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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