

## Material - ASTM A743 CF10SMnN

**Standard Specification for Castings, Iron-Chromium-Nickel, Corrosion Resistant, for General Application**

**Group - Ferrous Stainless Steel Alloys**

**Sub Group - ASTM A743 / A743M Casting, Iron-Chromium-Nickel, corrosion Resistant Casting, for General Application**

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

**Grade Belongs to the Industry - Casting**

| Chemical Composition |      |                 | Heat Treatment          |          |
|----------------------|------|-----------------|-------------------------|----------|
| Carbon               | C %  | 0.100 max.      | Solution Annealing      |          |
| Silicon              | Si % | 3.500 - 4.500   |                         |          |
| Manganese            | Mn % | 7.000 - 9.000   |                         |          |
| Phosphorus           | P %  | 0.060 max.      |                         |          |
| Sulphur              | S %  | 0.030 max.      |                         |          |
| Chromium             | Cr % | 16.000 - 18.000 |                         |          |
| Nickel               | Ni % | 8.000 - 9.000   |                         |          |
| Nitrogen             | N %  | 0.080 - 0.180   |                         |          |
| Iron                 | Fe % | Balance         | Mechanical Properties   |          |
| -                    | -    | -               | Tensile Strength in Mpa | 585 min. |
| -                    | -    | -               | Yield Strength in Mpa   | 290 min. |
| -                    | -    | -               | Elongation in %         | 30 min.  |
| -                    | -    | -               | Reduction of Area in %  | -        |
| -                    | -    | -               | Hardness in BHN         | -        |
| -                    | -    | -               | Impact in Joule         | -        |

| Cross Reference Table |          |         |                                               |
|-----------------------|----------|---------|-----------------------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry                  |
| SA-351 CF10SMnN       | ASME     | USA     | Casting                                       |
| J92972 UNS            | UNS      | USA     | Casting                                       |
| S21800 UNS            | UNS      | USA     | Casting                                       |
| 5848                  | AMS      | USA     | Bar, Wire, Extrusions, Tube, Ring and Forging |
| SA-276 S21800         | ASME     | USA     | Bar and Shape                                 |
| A580 S21800           | ASTM     | USA     | Wire                                          |
| ASTM A 351 CF10SMnN   | ASTM     | USA     | 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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