

## Material - ASTM A743 CK35MN

**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 %  | 0.035 max.      | Solution Annealing      |          |
| Silicon              | Si % | 1.000 max.      |                         |          |
| Manganese            | Mn % | 2.000 max.      |                         |          |
| Phosphorus           | P %  | 0.035 max.      |                         |          |
| Sulphur              | S %  | 0.020 max.      |                         |          |
| Chromium             | Cr % | 22.000 - 24.000 |                         |          |
| Nickel               | Ni % | 20.000 - 22.000 |                         |          |
| Molybdenum           | Mo % | 6.000 - 6.800   |                         |          |
| Copper               | Cu % | 0.400 max.      | Mechanical Properties   |          |
| Nitrogen             | N %  | 0.210 - 0.320   | Tensile Strength in Mpa | 570 min. |
| Iron                 | Fe % | Balance         | Yield Strength in Mpa   | 280 min. |
| -                    | -    | -               | Elongation in %         | 35 min.  |
| -                    | -    | -               | Reduction of Area in %  | -        |
| -                    | -    | -               | Hardness in BHN         | -        |
| -                    | -    | -               | Impact in Joule         | -        |

| Cross Reference Table |          |         |                                           |
|-----------------------|----------|---------|-------------------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry              |
| A213 S 32050          | ASTM     | USA     | Tubes for Superheaters and Heat Exchanges |
| A240 S 32050          | ASTM     | USA     | Plate, Sheet and Strip                    |
| A 959 S 32050         | ASTM     | USA     | Plate, Sheet and Strip                    |
| A358 S 32050          | ASTM     | USA     | Pipes                                     |
| A249 S 32050          | ASTM     | USA     | Tubes for Superheaters and Heat Exchanges |
| S 32050               | UNS      | USA     | Plate, Sheet and Strip                    |
| STS 350               | KS       | Koria   | 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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