

## Material - ASTM A743 CK20

**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 %  | 0.200 max.      | Solution Annealing      |          |
| Silicon              | Si % | 2.000 max.      |                         |          |
| Manganese            | Mn % | 2.000 max.      |                         |          |
| Phosphorus           | P %  | 0.040 max.      |                         |          |
| Sulphur              | S %  | 0.040 max.      |                         |          |
| Chromium             | Cr % | 23.000 - 27.000 |                         |          |
| Nickel               | Ni % | 19.000 - 22.000 |                         |          |
| Iron                 | Fe % | Balance         |                         |          |
| -                    | -    | -               | Mechanical Properties   |          |
| -                    | -    | -               | Tensile Strength in Mpa | 450 min. |
| -                    | -    | -               | Yield Strength in Mpa   | 195 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 |
| A351 CK20             | ASTM     | USA     | Casting                      |
| SA-351 Grade CK20     | ASME     | USA     | Casting                      |
| 1.4843                | DIN      | Germany | Round and Flat Wire          |
| SCS 18                | JIS      | Japan   | Centrifugal Cast Steel Pipes |
| Ch25N20               | GOST     | Russia  | Precision Alloys             |
| H 23 N 18             | PN       | Poland  | Heat Resisting Steel         |
| T 25 NiCr 250         | STAS     | Romania | 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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