GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

# Material - IS 7899 Grade 1 Class C

## Standard Specification for Alloy Steel Castings Suitable For Pressure Service-Specification

**Group - Ferrous Mild Steel Alloys**
**Sub Group - IS 7899 Grade 1 Class C Alloy Steel Castings Suitable For Pressure Service-Specification**
**Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries**
**Grade Belongs to the Industry - Casting**

| Chemical Composition | | |
|---|---|---|
| Carbon | C % | 0.300 max. |
| Silicon | Si % | 0.800 max. |
| Manganese | Mn % | 1.000 max. |
| Sulphur | S % | 0.045 max. |
| Phosphorus | P % | 0.040 max. |
| Vanadium | V % | 0.070 - 0.150 |
| Copper | Cu % | 0.500 max. |
| Nickel | Ni % | 0.500 max. |
| Chromium | Cr % | 0.350 max. |
| Mo + W | Mo% + W% | 0.250 max. |
| Other | Ot % | 1.000 max. |
| Iron | Fe % | Balance |
| - | - | - |
| - | - | - |
| - | - | - |

| Heat Treatment |
|---|
| Normalising or Quenching or Tempering |

| Mechanical Properties | |
|---|---|
| Tensile Strength in Mpa | 620 min. |
| Yield Strength in Mpa | 450 min. |
| Elongation in % | 20 min. |
| Reduction of Area in % | 45 min. |
| Hardness in HB | 225 max. |
| Impact in Joule | - |

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| Cross Reference Table | | | |
|---|---|---|---|
| **Material** | **Standard** | **Country** | **Grade Belong to the Industry** |
| 1.7511 | DIN | Germany | Steel |
| 22 CrvV 3 | DIN | Germany | Steel |
| SAE J 1249 6118 | AISI | USA | Steel |
| J 1249 6118 | SAE | USA | Steel |
| 1553.2 E4816-W | AS | Australia | Steel |
| 1553.2 E4818-W | AS | Australia | Steel |
| G61180 | 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**

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.