



**GRAVITY CAST PVT. LTD.**  
**GRAVITY GROUP OF COMPANIES**

## Material - DIN 2.4673

**Standard Specification for Nickel-Base Alloy NiCr23Co12Mo Rod and Forging**

**Group - Non-Ferrous Nickel Alloys**

**Sub Group - DIN 2.4673 Nickel-Base Alloy NiCr23Co12Mo Rod and Forging**

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

**Grade Belongs to the Industry - Rod and Forging**

| Chemical Composition |      |                 | Heat Treatment                       |           |
|----------------------|------|-----------------|--------------------------------------|-----------|
| Carbon               | C %  | 0.050 - 0.080   | As-Cast or Annealing or Age Hardning |           |
| Silicon              | Si % | 0.300 max.      |                                      |           |
| Manganese            | Mn % | 0.500 max.      |                                      |           |
| Chromium             | Cr % | 21.000 - 23.000 |                                      |           |
| Cobalt               | Co % | 11.000 - 13.000 |                                      |           |
| Aluminium            | Al % | 0.800 - 1.300   |                                      |           |
| Boron                | B %  | 0.001 max.      |                                      |           |
| Molybdenum           | Mo % | 8.000 - 10.000  |                                      |           |
| Niobium              | Nb % | 0.600 max.      |                                      |           |
| Phosphorus           | P %  | 0.012 max.      |                                      |           |
| Sulphur              | S %  | 0.008 max.      | Mechanical Properties                |           |
| Titanium             | Ti % | 0.250 - 0.500   | Tensile Strength in Mpa              | 680 - 950 |
| Vanadium             | V %  | 0.600 max.      | Yield Strength in Mpa                | 330 min.  |
| Iron                 | Fe % | 1.500 max.      | Elongation in %                      | 30 min.   |
| Nickel               | Ni % | Balance         | Reduction of Area in %               | -         |
|                      |      |                 | Hardness in HV                       | 350 max.  |
|                      |      |                 | Impact in Joule                      | 80 @RT    |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| VDM alloy 617 B       | Gravity  | India   | Pipe                         |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |

**Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email [marketing@gravitycastindia.com](mailto: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.

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