



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

## Material - EN 10083-3 34CrNiMo6

### Standard Specification for Mild Steel Alloys Bar and Rod

Group - Ferrous Mild Steel Alloys

Sub Group - EN 10083-3 34CrNiMo6 Mild Steel Alloys Bar and Rod

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

Grade Belongs to the Industry - Bar and Rod

| Chemical Composition |      |               | Heat Treatment  |           |
|----------------------|------|---------------|---|-----------|
| Carbon               | C %  | 0.300 - 0.380 | As Raw or Annealing or Normalizing or Hardening and Tempering |           |
| Silicon              | Si % | 0.400 max.    |   |           |
| Manganese            | Mn % | 0.500 - 0.800 |   |           |
| Phosphorus           | P %  | 0.025 max.    |   |           |
| Sulphur              | S %  | 0.035 max.    |   |           |
| Chromium             | Cr % | 1.300 - 1.700 |   |           |
| Molybdenum           | Mo % | 0.150 - 0.300 |   |           |
| Nickel               | Ni % | 1.300 - 1.700 |   |           |
| Iron                 | Fe % | Balance       |   |           |
| -                    | -    | -             | <b>Mechanical Properties</b>                                  |           |
| -                    | -    | -             | Tensile Strength in Mpa                                       | 800 - 950 |
| -                    | -    | -             | Yield Strength in Mpa   | 600 min.  |
| -                    | -    | -             | Elongation in %   | 13 min.   |
| -                    | -    | -             | Reduction of Area in %  | -         |
| -                    | -    | -             | Hardness in BHN   | As Per HT |
| -                    | -    | -             | Impact in Joule   | 45 J @ RT |

| Cross Reference Table |          |                |                              |
|-----------------------|----------|----------------|------------------------------|
| Material              | Standard | Country        | Grade Belong to the Industry |
| 1.6582                | EN       | European Union | Bar and Rod                  |
| P 1000 - 34CrNiMo6    | AFNOR NF | France         | Bar and Rod                  |
| P 880 - 34CrNiMo6     | AFNOR NF | France         | Bar and Rod                  |
| 1.6579                | UNE      | Spain          | Bar and Rod                  |
| G35CrNiMo6-6          | UNE      | Spain          | Bar and Rod                  |
| 1.6579                | SS       | Sweden         | Bar and Rod                  |
| G35CrNiMo6-6          | SS       | Sweden         | Bar and Rod                  |

**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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