



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

## Material - ASME SB-446 N06650

Standard Specification for Nickel-Chromium-Molybdenum-Columbium Alloy, Rod and Bar

Group - Non-Ferrous Nickel Alloys

Sub Group - ASME SB-446 N06650 Nickel-Chromium-Molybdenum-Columbium Alloy, Rod and Bar

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

Grade Belongs to the Industry - Rod and Bar

| Chemical Composition |           |                 | Heat Treatment                       |  |
|----------------------|-----------|-----------------|--------------------------------------|--|
| Carbon               | C %       | 0.030 max.      | As-Cast or Annealing or Age Hardning |  |
| Silicon              | Si %      | 0.500 max.      |                                      |  |
| Manganese            | Mn %      | 0.500 max.      |                                      |  |
| Chromium             | Cr %      | 19.000 - 21.000 |                                      |  |
| Sulphur              | S %       | 0.010 max.      |                                      |  |
| Copper               | Cu %      | 0.300 max.      |                                      |  |
| Iron                 | Fe %      | 12.000 - 16.000 |                                      |  |
| Molybdenum           | Mo %      | 9.500 - 12.500  |                                      |  |
| Cobalt               | Co %      | 1.000 max.      |                                      |  |
| Aluminium            | Al %      | 0.050 - 0.500   |                                      |  |
| Nb + Ta              | Nb% + Ta% | 0.050 - 0.500   |                                      |  |
| Phosphorus           | P %       | 0.020 max.      |                                      |  |
| Tungsten             | W %       | 0.500 - 2.500   |                                      |  |
| Nitrogen             | N %       | 0.050 - 0.200   |                                      |  |
| Nickel               | Ni %      | Balance         |                                      |  |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| B 446 N06650          | ASTM     | USA     | Rod and Bar                  |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |

**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.

**ONE STOP SOLUTION FOR METAL PARTS**