



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

## Material - ASTM B 443 N06219

**Standard Specification for Nickel-Chromium-Molybdenum-Columbium Alloy and Nickel-Chromium-Molybdenum-Silicon Alloy Plate, Sheet, and Strip**

**Group - Non-Ferrous Nickel Alloys**

**Sub Group - ASTM B 443 N06219 Nickel-Chromium-Molybdenum-Columbium Alloy and Nickel-Chromium-Molybdenum-Silicon Alloy Plate, Sheet, and Strip**

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

**Grade Belongs to the Industry - Plate, Sheet and Strip**

| Chemical Composition |      |                 | Heat Treatment  |  |
|----------------------|------|-----------------|---|--|
| Carbon               | C %  | 0.050 max.      | As-Cast or Annealing or Age Hardning  |  |
| Silicon              | Si % | 0.700 - 1.100   |   |  |
| Manganese            | Mn % | 0.500 max.      |   |  |
| Chromium             | Cr % | 18.000 - 22.000 |   |  |
| Sulphur              | S %  | 0.010 max.      |   |  |
| Copper               | Cu % | 0.500 max.      |   |  |
| Iron                 | Fe % | 2.000 - 4.000   |   |  |
| Molybdenum           | Mo % | 7.000 - 9.000   |   |  |
| Cobalt               | Co % | 1.000 max.      |   |  |
| Aluminium            | Al % | 0.500 max.      |   |  |
| Titanium             | Ti % | 0.500 max.      | <b>Mechanical Properties</b><br>Tensile Strength in Mpa      660 min.<br>Yield Strength in Mpa      270 min.<br>Elongation in %      50 min.<br>Reduction of Area in %      -<br>Hardness in BHN      -<br>Impact in Joule      - |  |
| Phosphorus           | P %  | 0.020 max.      |   |  |
| Nickel               | Ni % | Balance         |   |  |
| -                    | -    | -               |   |  |
| -                    | -    | -               |   |  |
| -                    | -    | -               |   |  |
| -                    | -    | -               |   |  |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| B 446 N06219          | ASTM     | USA     | Rod and Bar                  |
| B 444 N06219          | ASTM     | USA     | Pipe and Tube                |
| B 564 N06219          | ASTM     | USA     | Forging                      |
| B 704 N06219          | ASTM     | USA     | Tube                         |
| B 705 N06219          | ASTM     | USA     | Pipe                         |
| SB-443 N06219         | ASME     | USA     | Plate, Sheet and Strip       |
| SB-444 N06219         | ASME     | USA     | Pipe and Tube                |

**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)**

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