

## Material: SAE Monel R405

### Standard Specification for Nickel - Copper Alloy, Corrosion-Resistant, Bars and Forgings

**Group:** Non-Ferrous Nickel Alloys

**Sub Group:** SAE Monel R405 Nickel - Copper Alloy, Corrosion-Resistant, Bars and Forgings

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

**Grade Belongs to the Industry:** Bar and Forging

| Chemical Composition |      |                | Heat Treatment  |  |
|----------------------|------|----------------|---|--|
| Carbon               | C %  | 0.300 max.     | As-Cast or Annealing or Age Hardning  |  |
| Silicon              | Si % | 0.500 max.     |   |  |
| Manganese            | Mn % | 2.000 max.     |   |  |
| Sulphur              | S %  | 0.025 - 0.060  |   |  |
| Iron                 | Fe % | 2.500 max.     |   |  |
| Copper               | Cu % | 28.000- 34.000 |   |  |
| Nickel               | Ni % | Balance        |   |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 483 - 966<br>Yield Strength in Mpa 172 - 897<br>Elongation in % 4 - 50<br>Reduction of Area in % 50 - 70<br>Hardness in HRC 60 - 100<br>Impact in Joule - |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| N04405                | UNS      | USA     | Bar and Forging              |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |

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