

## Material: SAE Inconel X750

### Standard Specification for Nickel Alloy, Corrosion and Heat-Resistant, Wire

**Group:** Non-Ferrous Nickel Alloys

**Sub Group:** SAE Inconel X750 Nickel Alloy, Corrosion and Heat-Resistant, Wire

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

**Grade Belongs to the Industry:** Wire

| Chemical Composition |      |                 | Heat Treatment                       |            |
|----------------------|------|-----------------|--------------------------------------|------------|
| Carbon               | C %  | 0.080 max.      | As-Cast or Annealing or Age Hardning |            |
| Silicon              | Si % | 0.500 max.      |                                      |            |
| Manganese            | Mn % | 1.000 max.      |                                      |            |
| Chromium             | Cr % | 14.000 - 17.000 |                                      |            |
| Aluminium            | Al % | 0.400 - 1.000   |                                      |            |
| Copper               | Cu % | 0.500 max.      |                                      |            |
| Cobalt               | Co % | 1.000 max.      |                                      |            |
| Niobium              | Nb % | 0.700 - 1.200   |                                      |            |
| Tantalum             | Ta % | 0.050 max.      |                                      |            |
| Sulphur              | S %  | 0.010 max.      |                                      |            |
|                      |      |                 | Mechanical Properties                |            |
| Titanium             | Ti % | 2.250 - 2.750   | Tensile Strength in Mpa              | 759 - 1897 |
| Iron                 | Fe % | 5.000 - 9.000   | Yield Strength in Mpa                | 345 - 1656 |
| Nickel               | Ni % | Balance         | Elongation in %                      | 2 - 45     |
| -                    | -    | -               | Reduction of Area in %               | 8 - 60     |
| -                    | -    | -               | Hardness in HRC                      | 30 - 93    |
| -                    | -    | -               | Impact in Joule                      | -          |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| N07750                | UNS      | USA     | Wire                         |
| SIMALLOY              | SAE      | USA     | Wire                         |
| UNITEMP 750           | SAE      | USA     | Wire                         |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |

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