

## X750 NICKEL ALLOY

Alloy X750 (AMS 5542, AMS 5598, AMS 5667) is a precipitation-hardenable nickel chromium alloy, offering good strength and corrosion resistance at elevated temperatures. Nickel Alloy X750 can be used in applications that range from gas turbines and rocket engines, to springs and fasteners used at cryogenic temperatures.

| Specific Gravity                          |  |                         |                     |            |                      |                        |  |  |  |  |  |  |  |  |  |
|-------------------------------------------|--|-------------------------|---------------------|------------|----------------------|------------------------|--|--|--|--|--|--|--|--|--|
|                                           |  |                         |                     |            |                      |                        |  |  |  |  |  |  |  |  |  |
| Typical Applications                      |  |                         |                     |            |                      | Related Specifications |  |  |  |  |  |  |  |  |  |
| Gas Turbines<br>Rocket Engines<br>Springs |  |                         |                     |            |                      | AMS 5542               |  |  |  |  |  |  |  |  |  |
|                                           |  |                         |                     |            |                      | AMS 5598               |  |  |  |  |  |  |  |  |  |
|                                           |  |                         |                     |            |                      | AMS 5667               |  |  |  |  |  |  |  |  |  |
|                                           |  |                         |                     |            |                      | ASTM B637              |  |  |  |  |  |  |  |  |  |
| Chemical Composition (Wt %)               |  |                         |                     |            |                      |                        |  |  |  |  |  |  |  |  |  |
|                                           |  |                         |                     |            |                      |                        |  |  |  |  |  |  |  |  |  |
| Min                                       |  |                         |                     |            |                      |                        |  |  |  |  |  |  |  |  |  |
| Max                                       |  |                         |                     |            |                      |                        |  |  |  |  |  |  |  |  |  |
| Typical Mechanical Properties             |  |                         |                     |            |                      |                        |  |  |  |  |  |  |  |  |  |
|                                           |  | 0.2%<br>Proof<br>Stress | Tensile<br>Strength | Elongation | Reduction<br>of area | Hardness               |  |  |  |  |  |  |  |  |  |
|                                           |  |                         |                     |            |                      |                        |  |  |  |  |  |  |  |  |  |
| Content                                   |  |                         |                     |            |                      |                        |  |  |  |  |  |  |  |  |  |
|                                           |  |                         |                     |            |                      |                        |  |  |  |  |  |  |  |  |  |
|                                           |  |                         |                     |            |                      |                        |  |  |  |  |  |  |  |  |  |
| Hardness after Heat Treatment             |  |                         |                     |            |                      |                        |  |  |  |  |  |  |  |  |  |

\* This data has been supplied in good faith and is indicative only. It has been provided for general information purposes only and is not to be relied upon in place of the full specification. Mechanical properties can vary considerably with different supply conditions such as heat treatment or temper and product dimensions.

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