

CUSTOM 630 (17-4)

Custom 630 (17-4) is a martensitic precipitation-hardenable stainless steel used for applications requiring high strength and a moderate level of corrosion resistance.

Custom 630 (17-4) is **air-hardenable and strengthened by copper precipitates during an aging process**. Optimal properties can be achieved through the appropriate aging treatment for a given application. The name 17-4 comes from its composition: approximately 17% chromium and 4% nickel. The alloy also contains 4% copper and 0.3% niobium.

Similar alloys: Custom 630 (17-4) Project 70®+, 15Cr-5Ni, 15Cr-5Ni Project 70+



KEY FEATURES OF CUSTOM 630 (17-4)

- **High strength:** Custom 630 (17-4) is a high-strength material, making it ideal for applications that require durability and resistance to deformation under load. This includes industries like aerospace and industrial.
- **Good mechanical properties:** The alloy maintains good mechanical properties even at temperatures up to 600°F (316°C). This makes it suitable for use in environments with high thermal loads.
- **Versatility:** Due to its unique combination of properties, Custom 630 (17-4) can be used in a wide range of industries, from food processing to general metalworking, giving it a broad market appeal.
- **Moderate corrosion resistance:** While not as resistant as some other stainless steels, Custom 630 (17-4) still offers a moderate level of corrosion resistance, making it suitable for many applications.
- **Precipitation hardening:** The precipitation hardening process used in Custom 630 (17-4) enhances its strength and hardness, making it an excellent choice for applications requiring these characteristics.
- **Cost-effective:** Compared to many high-performance materials, Custom 630 (17-4) can be a more cost-effective choice, offering a balance of performance and cost.

