

HAYNES[®] Waspaloy alloy

Principal Features

HAYNES[®] Waspaloy alloy (UNS N07001) is an age-hardenable, nickel-based superalloy with very good strength at temperatures up to about 1800°F (980°C). It is widely used as a wrought material for forged and fabricated gas turbine and aerospace components. Its strength is generally comparable to HAYNES[®] R-41 alloy, and is superior to that of alloy 718 at temperatures above 1200-1300°F (650-705°C). Waspaloy alloy can be cold-formed in the annealed condition, and may also be hot-formed at temperatures of 1900°F (1040°C) or above. Weldability is somewhat limited by susceptibility to strain age cracking under conditions of heavy restraint. The alloy exhibits good resistance to gas turbine combustion environments at temperatures up to about 1600°F (870°C). Waspaloy alloy is now being replaced in many applications by HAYNES[®] 282[®] alloy, due to the superior fabricability and creep-strength of 282[®] alloy.