

Westgate

800h/800ht

(UNS N08810, UNS N08811) W. Nr. 1.4958, 1.4959

Chemical composition	Ni	Cr	Fe	C	Mn	P	Su	Si	Al	Ti
% Present (Max)	30. 0- 35.0	19.0 -23. 0	39.5	0.05- 0.10	1.50	0.0 45	0.0 15	1.0	0.15 -0.6 0	0.15 -0.6 0

Alloys 800H (UNS N08810) and 800HT (UNS N08811) are dual certifiable Nickel-Iron-Chromium materials that resist oxidation, carburization and other high temperature corrosion. The chemical composition of the two alloys are identical to Alloy 800 (UNS N08800), with the exception of the higher level of carbon present in both grades— (0.05–0.10%) in alloy 800H, and (0.06–0.10%) in alloy 800HT. Alloy 800HT also has an addition of up 1.0 % aluminum and titanium. In addition to the chemistry restrictions, both alloys receive a high temperature annealing treatment that produces an average grain size of ASTM 5 or coarser. The restricted chemical compositions, combined with the high temperature anneal, assure these materials have greater creep and rupture strength when compared to Alloy 800. Alloy 800H has good creep rupture properties at temperatures above 1100°F (600°C). It remains ductile during long term use at temperatures below 1290°F (700°C) due to a maximum titanium and aluminum content of 0.7%. Alloy 800 with a standard anneal is recommended for service below 1100°F (600°C). Alloy 800H resists reducing, oxidizing and nitriding atmospheres, as well as, atmospheres that alternate between reducing and oxidizing. The alloy remains stable in long term high temperature service. Alloy 800HT has excellent creep strength at temperatures above 1290°F (700°C). If the application involves frequent temperature excursions under 1290°F (700°C) or parts of are permanently exposed to a temperature below 1290°F (700°C), Alloy 800H should be utilized. The high temperature resistance of Alloy 800HT is comparable to Alloy 800H. It also remains stable in long term high temperature service.

Note: Values are in accordance with EN 10088 specifications. Actual mill certs available upon request.



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