

Material Data Sheet



Alloy 200/201

Chemical Composition	Cr	Ni	Mo	Cu	Cb+ Ta	Al	Ti	C	Fe	Me	Mn	Si	P	S
% Values (minimum)		99.0		-				-			-	-		-
% Values (Maximum)		-		0.25				0.15			0.35	0.35		0.1

APPLICATIONS

Processes where Sodium Hydroxide is used
Chemical Processing and Storage caustic evaporators, in spun anodes
Synthetic Fibre Production combustion boats and laboratory crucibles, and electronic components
Food Processing

DESCRIPTION

Nickel 200 and Nickel 201 are solid solution strengthened, commercially pure wrought materials. Typically, the elemental restrictions of both alloys are combined into one, dual-certified chemistry resulting in a single alloy with the desired characteristics of both alloys.

Applications where Nickel 200/201 can be used include chemical processing and storage, synthetic fibre production, and processes where sodium hydroxide and fluorine is used. Other applications include aerospace and defence as well as food processing. Nickel 200/201 has exceptional resistance to caustic alkalis at various temperatures and concentrations. When operating temperatures are expected to exceed 600°F, carbon content becomes critical. The lower carbon content of Nickel 201 makes the material resistant to graphitization and therefore less subject to embrittlement.

Pressure vessels and vessel components can be constructed from Nickel 201 according to the ASME Boiler and Pressure Vessel Code, Section VIII, Division 1 for use up to 1250°F.

CORROSION RESISTANCE

Both Nickel 200 and 201 offer corrosion resistance in reducing and neutral media as well as in oxidizing atmospheres provided that the oxidizing media allows the formation of a passive oxide film. This oxide film accounts for the materials excellent resistance in caustic environments.



