

# Material Data Sheet



## Alloy 20

Chemical Composition	Cr	Ni	Mo	Cu	Nb + Ta	Al	Ti	C	Fe	Me	Mn	Si	P	S
% Values (minimum)	19.0	32.5	2.0	3.0	8 x C 1.0			-	-		-	-	-	-
% Values (Maximum)	21.0	35.0	3.0	4.0				0.06	bal		2.0	1.0	0.035	0.035

### APPLICATIONS

Sulfuric acid pickling tanks, racks and heating coils  
Heat exchangers  
Process piping  
Mixing tanks  
Chemical and petroleum process equipment  
Phosphate coating drums and racks

### DESCRIPTION

Alloy 20 is an iron-base, austenitic alloy with excellent corrosion resistance to a number of different media and proves to be useful in a number of applications such as flue-gas desulfurization, chemical processing, food processing and storage as well as pharmaceutical applications to name a few. Application of the alloy could result in real cost savings when carefully compared to higher-cost alloys to determine if the necessary resistance is obtained in the chosen media. Applications are limited to a maximum temperature of 1000°F per ASME.

### CORROSION RESISTANCE

Resistance to sulfuric acid is particularly exceptional but the alloy shows useful resistance in phosphoric acid, nitric acid as well as in chloride environments. Alloy 20 is an excellent option when chloride stress corrosion cracking is an issue and resists pitting and crevice corrosion.

