TECHNICAL INFORMATION

STAINLESS STEEL DIN 1.4571 (V4A) , AISI 316 Ti SPECIFICATION

COMPOSITION			
C-0,08% , Fe-62% , Cr-18% , Ni-14% , Mn-2% , Mo- 3% , Ti-0,4% , P-0,045% , S-0,05% , Si-1%			
DESCRIPTION			
Molybdenum content increased resistance to marine environments. High creep strength at elevated temperatures and good heat resistance . Biocompatible . Food and pharmaceutical processing equipment , marine exterior trim , surgical implants , and industrial equipment that handles the corrosive process chemicals used to produce inks , rayons , photographic chemicals , paper , textiles , bleaches , and rubber . Resists sodium and calcium brines ; hypochlorite solutions , phosphoric acid ; and the sulfite liquors and sulfurous acid used in the paper pulp industry .			
PHISICAL PROPERTIES			
Property	Unit	Value	Comments
Density	g/cm^3	8	
MECHANICAL PROPERTIES			
Hardness	Rockwell B	79	
Tensile strength , Ultimate	MPa	580	
Tensile strength , Yield	MPa	290	
Elongation at Break	%	50	in 50 mm
Modulus of Elasticity	GPa	193	in tension
Charpy Impact	J	105	V - notch
Izod Impact	J	129	
ELECTRICAL PROPERTIES			
Electrical Resistivity	ohm · cm	7,4e - 005	
Magnetic Permeability		1,008	at RT
THERMAL PROPERTIES			
CTE linear 500ºC	µm / m ·ºC	17,5	0-540ºC
Heat capacity	J/g ·ºC	0,5	
Thermal conductivity	W/m · K	16,3	100ºC
Melting point	ºC	1370 - 1400	
Maximum service Temperature , Air	ºC	870	Continous service
Maximum service Temperature , Air	ºC	925	Intermittent service

SUGGESTED APPLICATION

CORRODENT	TEMP. ºC	TEMP. ºC	CONC. %	CORRODENT	TEMP. ºC	TEMP. ºC	CONC. %
Aluminium Sulfate	100	212	ALL	Oxygen	24	75	ALL
Ammonia , Dry	100	212	ALL	Oleic Acid	SEE FATTY ACIDS		
Ammonium Hydroxide (Ammonia , Aqua)	100	212	ALL	Palmitic Acid	SEE FATTY ACIDS		
Ammonium Sulfate	100	212	ALL	Phosphoric Acid	100	212	ALL
Barium Compounds	SEE CALCIUM			Phenol	100	212	ALL
Benzene (Benzol)	100	212		Potassium Compounds	SEE SODIUM COMPOUNDS		
Benzoic Acid	100	212		Propane	149	300	
Boric Acid	200	400	ALL	Rosin	371	700	100%
Butane	204	400	ALL	Sodium Bicarbonate	100	212	20%
Butyl Alcohol	SEE ALCOHOLS			Sodium Carbinate	100	212	40%
Calcium Hypochlorite	SEE BLEACHING POWDER			Salt or Brine	SEE SODIUM CHLORIDE		
Carbolic Acid	SEE PHENOL			Sodium Hydroxide	100	212	30%
Copper (10) Nitrate	149	300	ALL	Sodium Nitrite	24	75	20%
Copper (10) Sulfate	149	300	ALL	Sodium Phosphate	100	212	10%
Ethyl Acetate	SEE LACQUER TRINNER			Sodium Silicate	100	212	10%
Ethyl Chloride , Dry	260	500		Sodium Sulfate	100	212	30%
Ethanol	SEE ALCOHOLS			Sodium Sulfide	100	212	10%
Ethylene Oxide	24	75		Stearic Acid	SEE FATTY ACIDS		
Fatty Acids	260	500	ALL	Sugar Solutions	SEE GLUCOSE		
Formaldehyde	100	212	40%	Sulfur Chloride	24	75	DRY
Formic Acid	149	300	ALL	Sulfur Dioxide	260	500	DRY
Freon	149	300		Sulfur Trioxide	260	500	DRY
Furfural	232	450		Sulfuric Acid	100	212	10%
Gasoline	149	300		Sulfuric Acid	100	212	90-100%
Hydrogen Fluoride ,Dry	79	175		Sulfurous Acid	24	75	20%
Kerosene	149	300	ALL	Titanium Tetrachloride	24	75	ALL
Lactic Acid	149	300	ALL	Toluene	24	75	
Lime	100	212	ALL	Turpentine	24	75	
Linseed Oil	24	75		Varnish	66	150	
Mercury	371	700	100%	Zinc Sulfate	100	212	ALL
Methyl Chloride , Dry	24	75					
Molasses	SEE GLUCOSE						
Nitric Acid	149	300	ALL				