

ATI Allegheny Ludlum AL 22™ Nickel-Base Alloy, UNS N06022

Category : Metal , Nonferrous Metal , Nickel Alloy , Superalloy

Material Notes:

AL 22 alloy is a Ni-Cr-Mo alloy that provides outstanding resistance to pitting, crevice corrosion, intergranular attack, and stress corrosion cracking. The combination of Cr, Ni, Mo, and W provides excellent resistance to a broad range of both oxidizing and reducing environments. Allegheny Ludlum's plate mill has been producing this alloy since 1987. The alloy is used in a wide range of applications including flue-gas desulfurization systems, bleaching processes in pulp-and-paper plants, waste incinerators, sour gas service, chemical processing plants, pharmaceutical plants, and radioactive waste storage. The AL 22 alloy possesses high strength, good ductility, excellent welding and forming characteristics. The alloy has been incorporated in ASTM and ASME specifications and is available in a wide range of product forms such as plate, sheet, strip, tube, pipe, bar, billet, and forgings. Information provided by Allegheny Ludlum

Order this product through the following link:

http://www.lookpolymers.com/polymer_ATI-Allegheny-Ludlum-AL-22-Nickel-Base-Alloy-UNS-N06022.php

Physical Properties	Metric	English	Comments
Density	8.62 g/cc	0.311 lb/in ³	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	173	173	Typical; Annealed Plate
Hardness, Rockwell B	87	87	Typical; Annealed Plate
Tensile Strength, Ultimate	724 MPa	105000 psi	Typical; Annealed Plate
Tensile Strength, Yield	345 MPa @ Strain 0.200 %	50000 psi @ Strain 0.200 %	Typical; Annealed Plate
Elongation at Break	67 %	67 %	Typical; Annealed Plate
Modulus of Elasticity	207 GPa	30000 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	12.44 µm/m-°C @ Temperature 20.0 - 217 °C	6.911 µin/in-°F @ Temperature 68.0 - 423 °F	
Specific Heat Capacity	0.422 J/g-°C	0.101 BTU/lb-°F	
Thermal Conductivity	9.40 W/m-K	65.2 BTU-in/hr-ft ² -°F	
Melting Point	1388 °C	2530 °F	
Solidus	1354 °C	2469 °F	
Liquidus	1354 - 1388 °C	2469 - 2530 °F	

Thermal Properties	Metric	English	Comments
Component Elements Properties	Metric	English	Comments
Carbon, C	<= 0.010 %	<= 0.010 %	
Chromium, Cr	20.6 %	20.6 %	
Cobalt, Co	<= 0.10 %	<= 0.10 %	
Iron, Fe	2.5 %	2.5 %	
Molybdenum, Mo	13.9 %	13.9 %	
Nickel, Ni	60 %	60 %	as balance
Silicon, Si	0.030 %	0.030 %	
Sulfur, S	0.0010 %	0.0010 %	
Tungsten, W	2.65 %	2.65 %	
Vanadium, V	0.16 %	0.16 %	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China