

## ATI Allvac® Nickelvac® H-46 Specialty Steel, Heat Treatment: 1149°C (2100°F) Anneal

Category : Metal , Ferrous Metal , Stainless Steel

### Material Notes:

Data provided by Allvac.Applications: Structural components for land-based turbine engines. Rings and structurals in jet engines.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ATI-Allvac-Nickelvac-H-46-Specialty-Steel-Heat-Treatment-1149C-2100F-Anneal.php](http://www.lookpolymers.com/polymer_ATI-Allvac-Nickelvac-H-46-Specialty-Steel-Heat-Treatment-1149C-2100F-Anneal.php)

Physical Properties	Metric	English	Comments
Density	7.75 g/cc	0.280 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	304	304	Estimated from Rockwell C value for Brinell test with 3000 kg load/10 mm diameter ball
Hardness, Knoop	330	330	Estimated from Rockwell C value.
Hardness, Rockwell C	32	32	
Hardness, Vickers	318	318	Estimated from Rockwell C value.
Tensile Strength, Ultimate	690 MPa	100000 psi	
Tensile Strength, Yield	621 MPa @Strain 0.200 %	90100 psi @Strain 0.200 %	
Elongation at Break	18 %	18 %	
Reduction of Area	50 %	50 %	

Component Elements Properties	Metric	English	Comments
Carbon, C	0.16 %	0.16 %	
Chromium, Cr	11 %	11 %	
Copper, Cu	0.20 %	0.20 %	
Iron, Fe	86 %	86 %	as balance
Manganese, Mn	0.65 %	0.65 %	
Molybdenum, Mo	0.75 %	0.75 %	
Nickel, Ni	0.60 %	0.60 %	
Niobium, Nb (Columbium, Cb)	<= 0.35 %	<= 0.35 %	

Component Elements Properties	Metric	English	Comments
Phosphorous, P	0.010 %	0.010 %	
Silicon, Si	0.45 %	0.45 %	
Sulfur, S	0.0050 %	0.0050 %	
Tantalum, Ta	<= 0.35 %	<= 0.35 %	
Vanadium, V	0.25 %	0.25 %	

## Contact Songhan Plastic Technology Co.,Ltd.

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