

## ATI Allvac® Rene 41® Nickel Superalloy, Heat Treatment: 1079°C (1975°F) + Age

Category : Metal , Nonferrous Metal , Nickel Alloy , Superalloy

### Material Notes:

Data provided by Allvac.Applications: Jet and rocket engines, torque rings, afterburners, and hardware; space shuttle turbo pumps seals.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ATI-Allvac-Rene-41-Nickel-Superalloy-Heat-Treatment-1079C-1975F-Age.php](http://www.lookpolymers.com/polymer_ATI-Allvac-Rene-41-Nickel-Superalloy-Heat-Treatment-1079C-1975F-Age.php)

Physical Properties	Metric	English	Comments
Density	8.24 g/cc	0.298 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	334	334	Estimated from Rockwell C value for Brinell test with 3000 kg load/10 mm diameter ball
Hardness, Knoop	363	363	Estimated from Rockwell C value.
Hardness, Rockwell C	36	36	
Hardness, Vickers	349	349	Estimated from Rockwell C value.
Tensile Strength, Ultimate	1241 MPa	180000 psi	
Tensile Strength, Yield	793 MPa @Strain 0.200 %	115000 psi @Strain 0.200 %	
Elongation at Break	20 %	20 %	
Reduction of Area	25 %	25 %	

Component Elements Properties	Metric	English	Comments
Aluminum, Al	1.6 %	1.6 %	
Boron, B	0.0070 %	0.0070 %	
Carbon, C	0.060 %	0.060 %	
Chromium, Cr	19 %	19 %	
Cobalt, Co	11 %	11 %	
Iron, Fe	3.0 %	3.0 %	
Molybdenum, Mo	9.75 %	9.75 %	
Nickel, Ni	52 %	52 %	as balance

Component Elements Properties	Metric	English	Comments
-------------------------------	--------	---------	----------

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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