

## Special Metals INCONEL® 625LCF® Nickel Superalloy (UNS N06626) Annealed + 5% Cold Work

Category : Metal , Nonferrous Metal , Nickel Alloy , Superalloy

### Material Notes:

Tensile strength (ultimate and yield), elongation, and reduction of area values are for annealed then cold worked samples. This produces ASTM grain size 9.0. Other property values are typical of this alloy. Data provided by the manufacturer, Special Metals.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Special-Metals-INCONEL-625LCF-Nickel-Superalloy-UNS-N06626-Annealed-5-Cold-Work.php](http://www.lookpolymers.com/polymer_Special-Metals-INCONEL-625LCF-Nickel-Superalloy-UNS-N06626-Annealed-5-Cold-Work.php)

Physical Properties	Metric	English	Comments
Density	8.44 g/cc	0.305 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	951 MPa	138000 psi	
Tensile Strength, Yield	563 MPa @Strain 0.200 %	81700 psi @Strain 0.200 %	
Elongation at Break	46 %	46 %	
Modulus of Elasticity	208 GPa	30200 ksi	
Poissons Ratio	0.28	0.28	
Shear Modulus	81.4 GPa	11800 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	12.8 Åµm/m-Å°C @Temperature 21.0 - 100 Å°C	7.11 Åµin/in-Å°F @Temperature 69.8 - 212 Å°F	Mean
	13.3 Åµm/m-Å°C @Temperature 21.0 - 300 Å°C	7.39 Åµin/in-Å°F @Temperature 69.8 - 572 Å°F	Mean
	13.9 Åµm/m-Å°C @Temperature 21.0 - 500 Å°C	7.72 Åµin/in-Å°F @Temperature 69.8 - 932 Å°F	Mean
	14.9 Åµm/m-Å°C @Temperature 21.0 - 700 Å°C	8.28 Åµin/in-Å°F @Temperature 69.8 - 1290 Å°F	Mean
Specific Heat Capacity	0.410 J/g-Å°C	0.0980 BTU/lb-Å°F	

Thermal Properties	Metric	English	Comments
Melting Point	1290 - 1350 Å°C	2350 - 2460 Å°F	
Solidus	1290 Å°C	2350 Å°F	
Liquidus	1350 Å°C	2460 Å°F	
Maximum Service Temperature, Air	650 Å°C	1200 Å°F	resistance to low cycle and thermal fatigue

Component Elements Properties	Metric	English	Comments
Aluminum, Al	<= 0.40 %	<= 0.40 %	
Carbon, C	<= 0.030 %	<= 0.030 %	
Chromium, Cr	20 - 23 %	20 - 23 %	
Cobalt, Co	<= 1.0 %	<= 1.0 %	
Iron, Fe	<= 5.0 %	<= 5.0 %	
Manganese, Mn	<= 0.50 %	<= 0.50 %	
Molybdenum, Mo	8.0 - 10 %	8.0 - 10 %	
Nickel, Ni	>= 58 %	>= 58 %	
Niobium, Nb (Columbium, Cb)	3.15 - 4.15 %	3.15 - 4.15 %	Includes Ta
Nitrogen, N	<= 0.020 %	<= 0.020 %	
Phosphorous, P	<= 0.015 %	<= 0.015 %	
Silicon, Si	<= 0.020 %	<= 0.020 %	
Sulfur, S	<= 0.015 %	<= 0.015 %	
Titanium, Ti	<= 0.40 %	<= 0.40 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.000132 ohm-cm	0.000132 ohm-cm	
Magnetic Permeability	1.0006	1.0006	at 200 Oersted (15.9 kA/m)

## 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