

## PRODUCT OVERVIEW

**Pmet 820** is a nickel based superalloy alloyed primarily with chromium, niobium, tantalum, and cobalt. Pmet 820 is a precipitation hardened alloy similar to Pmet 818. Where Pmet 820 excels over Pmet 818 is the ability to still exhibit great workability and weldability at temperatures higher than Pmet 818. Pmet 220 displays good tensile and fatigue strength at temperatures up to 1300F.

## TYPICAL DEPOSIT CHARACTERISTICS:

- ⇒ Density: 0.295 lb/in<sup>3</sup>
- ⇒ Melting Range: 2250-2400 F
- ⇒ Machinability: Good
- ⇒ Oxidation Resistance: Excellent
- ⇒ Corrosion Resistance: Good

## APPLICATION

- ⇒ Gas Turbine Blades
- ⇒ Gas Turbine Vanes
- ⇒ Gas Turbine Frames and Casings

## NOMINAL CHEMICAL COMPOSITION (wt%)

Ni	Cr	Co	Nb	Mo	Ta	Ti	Al
BAL	19.0	12.0	5.0	3.0	3.0	1.0	<1.0

## MECHANICAL PROPERTIES:

Tensile Strength		Yield Strength		Elongation
Ksi	MPa	Ksi	MPa	%
160	1105	120	830	6

## STANDARD SIZES & PACKAGING:

Diameter	Packaging
0.020" (0.5 mm)	18" and 36" Cut Lengths
0.031" (0.8 mm)	18" and 36" Cut Lengths
0.035" (0.9 mm)	18" and 36" Cut Lengths
0.045" (1.2 mm)	18" and 36" Cut Lengths
0.062" (1.6 mm)	18" and 36" Cut Lengths
0.093" (2.4 mm)	18" and 36" Cut Lengths