

## PRODUCT OVERVIEW

**PMET 818** is a nickel based superalloy alloyed primarily with chromium, iron, niobium, and molybdenum. PMET 818 is mainly used in welding components which encounter cryogenic temperatures including aircraft and rocket components. This alloy displays good tensile and fatigue strength at temperatures from cryogenic to 1200F. This alloy can be age hardened and is resistant to post-weld cracking.

## TYPICAL DEPOSIT CHARACTERISTICS:

- ⇒ Density: 0.296 lb/in<sup>3</sup>
- ⇒ Melting Range: 2410-2540 F
- ⇒ Oxidation Resistance: Excellent
- ⇒ Corrosion Resistance: Good

## APPLICATION

- ⇒ Aircraft Components
- ⇒ Liquid Fuel Rocket Systems
- ⇒ Cryogenic Tanks

## SPECIFICATION

AMS 5832

## NOMINAL CHEMICAL COMPOSITION (wt%)

Ni	Cr	Fe	Nb	Mo	Co	Ti	Si	Mn
BAL	19.0	17.0	5.0	3.0	1.0	1.0	<1.0	<1.0

## MECHANICAL PROPERTIES:

Tensile Strength		Yield Strength		Elongation
Ksi	MPa	Ksi	MPa	%
158	1090	133	915	22

## STANDARD SIZES

### Diameter

- 0.031" (0.8 mm)
- 0.035" (0.9 mm)
- 0.045" (1.2 mm)
- 0.062" (1.6 mm)
- 0.093" (2.4 mm)