

PRODUCT OVERVIEW

PMET 854 is a nickel based superalloy alloyed primarily with chromium, tungsten, and molybdenum. This alloy exhibits fantastic oxidation resistance up to 2100F and offers excellent strength at temperatures above 1800F. PMET 854 has a low thermal expansion coefficient and resistance to grain coarsening at high temperatures making this alloy attractive for aerospace and power industries due to its superior long-term thermal stability. This alloy is commonly welded using GTAW and GMAW processes and is moderate/difficult to machine, however can be machined by most conventional methods.

TYPICAL DEPOSIT CHARACTERISTICS:

- ⇒ Density 0.327 lb/in³
- ⇒ Melting Point: 2450 F
- ⇒ Coefficient of Thermal Expansion (X 10⁻⁶K⁻¹): 13
- ⇒ Oxidation Resistance: Excellent
- ⇒ Corrosion Resistance: Great
- ⇒ Machinability: Moderate

APPLICATION

- ⇒ Combustion Cans
- ⇒ Ammonia Burners
- ⇒ Thermocouple Protection Tubes
- ⇒ Transition Ducts

SPECIFICATION

AMS 5839, AWS A5.14/ERNiCrWMo-1

NOMINAL CHEMICAL COMPOSITION (wt%)

Ni	Cr	W	Mo	Co	Fe	Al	Mn	Si	C	La
BAL	22.0	14.0	2.0	<5.0	<3.0	0.3	0.5	0.4	0.1	0.02

MECHANICAL PROPERTIES:

Tensile Strength		Yield Strength		Elongation
Ksi	MPa	Ksi	MPa	%
115	793	50	310	40

STANDARD SIZES:

Diameter

- 0.035" (0.9 mm)
- 0.045" (1.2 mm)
- 0.062" (1.6 mm)