

PRODUCT OVERVIEW

PMET 918 is a cobalt based superalloy alloyed mainly with chromium and nickel. PMET 918 also has an addition of tantalum for high temperature strength. This alloy is mainly used for casting repair and gas turbine engine components due to its ability to withstand severe thermal cycling. This alloy has great mechanical properties at high temperature and has fantastic oxidation and galling resistance.

TYPICAL DEPOSIT CHARACTERISTICS:

| | |
|-------------------------|--------------------------|
| ⇒ Density | 0.320 lb/in ³ |
| ⇒ Melting point: | 2550 F |
| ⇒ Machineability: | Good |
| ⇒ Oxidation Resistance: | Excellent |
| ⇒ Corrosion Resistance: | Great |
| ⇒ Galling Resistance: | Excellent |

APPLICATION

- ⇒ Gas turbine engines
- ⇒ Casting repair
- ⇒ Nozzle guide valve repair

NOMINAL CHEMICAL COMPOSITION (wt%)

| Co | Cr | Ni | Ta |
|-----|------|------|-----|
| BAL | 20.0 | 20.0 | 8.0 |

MECHANICAL PROPERTIES:

| Tensile Strength | | Yield Strength | | Elongation |
|------------------|-----|----------------|-----|------------|
| Ksi | MPa | Ksi | MPa | % |
| 130 | 895 | 130 | 895 | 48 |

STANDARD SIZES:

Diameter

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