

# PMET 297 / WC Amorphous Alloy

June 2024

## PRODUCT OVERVIEW

**PMET 297** is a cored wire specifically designed for arc spray systems. It is a titanium and tungsten carbide alloy in an amorphous matrix. PMET 297 produces a hard, abrasive and corrosion resistant coating, with a service environment of up to 1000° F. PMET 297 is used in a wide variety of industrial high wear applications.

## TYPICAL DEPOSIT CHARACTERISTICS:

⇒ Abrasion Resistance	Good
⇒ Typical Hardness:	HRC 65
⇒ Bond Strength:	5000 psi
⇒ Deposit Rate:	10 lbs/hr/100A
⇒ Deposit Efficiency	70%
⇒ Wire Coverage:	1.0 oz/ft <sup>2</sup> / mil
⇒ Surface Texture	variable
⇒ Machineability	No

\* Depends on air pressure used

## SURFACE PREPARATION

Surface should be clean, white metal, with no oxides (rust), dirt, grease, or oil on the surface to be coated. **Note:** It is best not to handle surfaces after cleaning.

Recommended method of preparation is to grit blast with 24 mesh aluminum oxide, rough grind, or rough machine in a lathe.

## APPLICATION

- ⇒ Fan Blades
- ⇒ Boiler Tubes
- ⇒ Other High Wear Application

## NOMINAL CHEMICAL COMPOSITION (wt%)

WC	Cr	TiC	Ni	B	Si	Fe
26.0	13	6.0	6.0	2.0	1.0	Bal

## RECOMMENDED SPRAY PARAMETERS:

Diameter	Air Pressure	Voltage	Amperage	Standoff
1/16" (1.6mm)	*50-60 psi	*29-32	*100-200	4-8 in (10-20 cm)

\* Parameters are typical and may vary depending on equipment used. Contact your equipment manufacturer for optimum spray parameters

## STANDARD SIZES & PACKAGING:

Diameter	Packaging	Part Number
1/16" (1.6mm)	25# LWS	297062LWS01