Technical Datasheet

PMET 296 Amorphous Alloy

July 16, 2015

PRODUCT OVERVIEW

PMET 296 is a cored wire specifically designed for arc spray systems. It produces a partially amorphous, hard, abrasive and corrosion resistant coating, with a service environment of up to 1700° F. High chrome like finishes can be obtained by typical grinding and lapping techniques. PMET 296 has found use in a wide variety of high wear applications, anti-skid surfacing applications, and corrosive environments.

TYPICAL DEPOSIT CHARACTERISTICS:

⇒ Abrasion Resistance:	Good
⇒ Typical Hardness:	HRC 50-55
⇒ Bond Strength:	6000 psi
⇒ Deposit Rate:	10 lbs/hr/100A
⇒ Deposit Efficiency	70%
⇒ Wire Coverage:	0.6 oz/ft^2 / mil
⇒ Surface Texture	* Variable
⇒ Machinability	** Grind

* Depends on air pressure used

** Grind using aluminum oxide

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

⇒ Boiler tubes & tube shields
⇒ Fan Blades
⇒ Drill Collars

SPECIFICATION

FeCrNiMoBCuSi

NOMINAL CHEMICAL COMPOSITION (wt%)

Cr	Ni	Mo	B	Si	Cu	Mn	Fe
23.0	6.0	3.5	2.5	2.0	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)	30# LWS	296062LWS01

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