

## PMET 273 / Fe Cr B Si Amorphous

June 2024

### PRODUCT OVERVIEW

**PMET 273** 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 up to 1700° F. High chrome like finishes can be obtained by typical grinding and lapping techniques. PMET 273 is used in a wide variety of high wear applications, anti-skid surfacing applications and corrosive environments.

### TYPICAL DEPOSIT CHARACTERISTICS:

|                      |                              |
|----------------------|------------------------------|
| ⇒ Typical Hardness:  | HRC 55-60                    |
| ⇒ Bond Strength:     | 6000 psi                     |
| ⇒ Deposit Rate:      | 10 lbs/hr/100A               |
| ⇒ Deposit Efficiency | 70%                          |
| ⇒ Wire Coverage:     | 1.0 oz/ft <sup>2</sup> / mil |
| ⇒ Surface Finish     | Grind **                     |

\*\* 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
- ⇒ Yankee Dryer Rolls
- ⇒ Anti-skid
- ⇒ Fan blades
- ⇒ Drill collars

### NOMINAL CHEMICAL COMPOSITION (wt%)

| Cr   | B   | Mn  | Si  | Fe  |
|------|-----|-----|-----|-----|
| 29.0 | 3.7 | 1.7 | 1.5 | 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   | 273062LWS01 |