

## TH45I Stainless HF Amorphous

### DESCRIPTION

TH45I 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. TH45I is used in a wide variety of high wear applications, anti-skid surfacing applications and corrosive environments.

### TYPICAL DEPOSIT CHARACTERISTICS:

- Bond Strength 6000 psi
- Typical Hardness HRB 55-60
- Deposit Rate 18 lbs./hr./150-200 Amps
- Deposit Efficiency 80%
- Wire Coverage 2 sq. ft./lbs. @ 12 mils
- Surface Texture Variable
- Machinability Good

### 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. \*Thermion recommends a 3.5 mil minimum anchor tooth profile.

### APPLICATIONS:

- Boiler Tubes & Tube Shields
- Yankee Dryer Rolls
- Fan Blades
- Drill Collars

### NOMINAL CHEMICAL COMPOSITION (wt. %):

Cr	Si	B	Mn	Fe
29.0	4.6	3.7	1.7	Bal

### RECOMMENDED SPRAY PARAMETERS:

Diameter	Air Pressure	Voltage	Amperage	Standoff
1/16" (1.6mm)	80-100 psi	28-32	100-300	4-7" (10-17cm)

Parameters are typical and may vary depending on equipment used.

### STANDARD SIZES & PACKAGING:

Diameter	Packaging
1/16 (1.6mm)	25#