

THI40 Amorphous Alloy

DESCRIPTION

THI40 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 1600 degrees F. High chrome like finishes can be obtained by typical grinding and lapping techniques. THI40 has found use in a wide variety of high wear applications, anti-skid surfacing applications, and corrosive environments.

TYPICAL DEPOSIT CHARACTERISTICS:

- Bond Strength 5500 psi
- Typical Hardness HRC 45-50
- Deposit Rate 18 lbs./hr./150-200 Amps
- Deposit Efficiency 70%
- Wire Coverage 2 sq. ft./lbs. @ 12 mils
- Surface Finish Grind

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

Rolls

Anti-Skid

NOMINAL CHEMICAL COMPOSITION (wt. %):

Cr	Ni	Mo	B	Cu	Mn	Si	Fe
23.0	9.0	4.0	2.3	2.0	1.3	1.0	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# Spool