

## TH35I High Chromium Carbide

**DESCRIPTION**

TH35I is a cored wire specifically designed for arc spray systems. It produces a hard, well bonded coating that is abrasive and corrosion resistant. TH35I can be easily machined with carbide tools, yielding a smooth, low coefficient of friction surface finish, suitable for a number of applications.

**TYPICAL DEPOSIT CHARACTERISTICS:**

- Bond Strength                      5250 psi
  - Typical Hardness                 HRC 55
  - Deposit Rate                        18-65 lbs. per hr.
  - Deposit Efficiency                 60-70%
  - Wire Coverage                     4 sq. ft. per lbs. @ 8-10 mils thick
  - Surface Finish                     Grind \*\*
- \*\*Grind with 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. \*Thermion recommends a 3.5 mil minimum anchor tooth profile.

**Applications:**

- Boiler Tubes
- Reclamation of Dimension
- Fan Blades
- Paper Rolls
- Food Processing

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

Cr	C	Mn	Si	Fe
28.0	5.0	1.0	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#