

## TH131 Iron Chrome Aluminum

### DESCRIPTION

TH131 is an iron chrome aluminum alloy wire specifically designed for arc spraying. It produces dense, well-bonded coatings with excellent wear and high temperature oxidation resistance. This wire is widely used for machine element repair and dimensional restoration applications. TH131's low shrink characteristic allows increased coating thickness. TH131 is machinable.

### TYPICAL DEPOSIT CHARACTERISTICS:

- Bond Strength                      6300 psi
- Typical Hardness                 HRB 95-100
- Deposit Rate                        18 lbs./hr./150-200 Amps
- Deposit Efficiency                 70%
- 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
- Boiler Tube Shields
- Dimensional Restoration

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

Cr	Al	Mn	Si	Fe
23.5	5.3	.45	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#