

TH114 High Carbon Steel**DESCRIPTION**

TH114 is a high carbon steel wire specifically designed for arc spraying. It produces dense, well-bonded coatings with excellent wear resistance, and is widely used for machine element repair, dimensional restoration and wear resistant applications. TH114 low shrink characteristics allow for increased coating thickness.

TYPICAL DEPOSIT CHARACTERISTICS:

- Bond Strength 8400 psi
- Typical Hardness HRC 20-25
- 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:

- Part Restoration
- Seating Surfaces
- Press Fit Surfaces

NOMINAL CHEMICAL COMPOSITION (wt. %):

C	Mn	Si	Al
.8	.7	.3	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#