Thermion®

Data Sheet

TH109 Carbon Steel

DESCRIPTION

TH109 is a carbon steel wire, copper coated and 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. TH109 low shrink characteristics allow for increased coating thickness.

TYPICAL DEPOSIT CHARACTERISTICS:

- Bond Strength 5800 PSI
- Typical Hardness HRB 95-100
- Deposit Rate 18 lbs/hr/100A
- Deposit Efficiency 80%
- Wire Coverage 0.8 oz/sq ft.
- 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.

Applications:

- Part Restoration
- Seating Surfaces
- Press Fit Surfaces
- Rebuilding Worn Shafts
- Transmission Houses
- Bearing Areas

NOMINAL CHEMICAL COMPOSITION (wt%):

Mn	Si	C	Fe
0.8	0.2	0.15	Bal

RECOMMENDED SPRAY PARAMETERS:

Diameter	Air Pressure	Voltage	Amperage	Standoff
1/16" (1.6mm)	50-60 psi	28-30	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#