



## TH257 Nickel Copper

### DESCRIPTION

TH257 is specifically designed for spraying in arc spray systems. It produces well-bonded coatings with excellent machinability. TH257 has good corrosion resistance, especially in sea water and caustic environments.

### TYPICAL DEPOSIT CHARACTERISTICS:

- Bond Strength 4310 psi
- Typical Hardness HRB 84
- Deposit Rate 18 lbs./hr./150-200 Amps
- Deposit Efficiency 70%
- Wire Coverage 2 sq. ft./lbs. @ 12 mils
- Corrosion Resistance Good
- 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:

Machine element restoration  
Sea water immersion  
Propellers  
Steam valve components  
Printing rolls

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

| Ni   | Cu   | Mn  | Fe  |
|------|------|-----|-----|
| 65.0 | 31.0 | 1.2 | 1.7 |

### 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 |
| 1/8 (3.2mm)  | 25# Coil  |