



TH420 Stainless Steel

DESCRIPTION

TH420 is a stainless steel wire, specifically designed for arc spray processes. TH420 forms a dense, well bonded coating, with excellent wear resistance and good corrosion resistance. It is widely used for machine elements repair, dimensional restoration, and wear resistant application. TH420 low shrink rate characteristics, allows for increased coating thickness on parts requiring heavier coatings.

TYPICAL DEPOSIT CHARACTERISTICS:

- Bond Strength 7100 psi
- Typical Hardness HRB 40-45
- Deposit Rate 18 lbs./hr./150-200 Amps
- Deposit Efficiency 80%
- 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:

- Paper Rolls
- Dimensional Restoration
- Corrosion/Wear

NOMINAL CHEMICAL COMPOSITION (wt. %):

Cr	Si	Mn	C	Fe
13.0	1.0	1.0	.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)	33#