



TH316 Stainless Steel

DESCRIPTION

TH316 is a 316 stainless steel wire specifically designed for arc spraying. It produces dense, well-bonded coatings with excellent machinability and wear and corrosion resistance. TH316 is widely used for machine element repair, dimensional restoration and wear resistance applications. It has relatively high shrink characteristics and should not be used for coatings over 0.075 inches thick.

TYPICAL DEPOSIT CHARACTERISTICS:

- Bond Strength 4650 psi
- Typical Hardness HRB 95-100
- 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:

- Shaft Buildup
- Parts Rebuilding
- Rams
- Food Industry Rolls

NOMINAL CHEMICAL COMPOSITION (wt. %):

Cr	Ni	Mn	Mo	Si	Fe
17.0	12.0	2.0	2.5	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#