

WISDOM Thermal Spray Consumables

Nickel based alloy



Pure Nickel

DATA SHEET

November 2015

DESCRIPTION:

Wisdom Nickel is a high purity nickel wire specifically designed for arc spraying. Wisdom Nickel produces dense, well-bonded coatings with excellent machine ability, electrical conductivity and corrosion resistance. It is widely used for machine element repair applications requiring high corrosion resistance.

TYPICAL DEPOSIT

CHARACTERISTICS:

- Typical Hardness HRB 50-60
- Bond Strength 5000 psi
- Deposit Rate 10 lbs /hr/100A
- Deposit Efficiency 70%
- Wire Coverage 0.8 oz/ft² /m
- Surface Texture *Variable
- Machine ability 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.

APPLICATION:

- Pump Plungers
- castings

CHEMICAL COMPOSITION (wt%):

Ni
99.0

RECOMMENDED SPRAY PARAMETERS:

Diameter	Air Pressure	Voltage	Amperage	Standoff
1.6mm	50 - 60 psi	28 - 30	100 - 200	4 – 7 in (10-17cm)

* Parameters are typical and may vary depending on equipment used. Contact your equipment manufacture for optimum spray parameters.

STANDARD SIZES & PACKAGING:

Diameter	Dimension Tolerance	Packing	Wire Weight
1/16"(1.6mm)	+0/-0.05	D 300 Spool	15kgs(33 lbs)/spool
2.0mm	+0/-0.05	D 300 Spool	15kgs(33 lbs)/spool
1/8"(3.17mm)	+0/-0.05	Coil Form	20-400kgs/coil