

WISDOM Thermal Spray Consumables

Iron based alloy



SS 420

DATA SHEET

November 2015

DESCRPTION:

Wisdom 420 is a 420 stainless steel wire, specifically designed for arc spray processes. Wisdom 420 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. Wisdom 420's low shrink rate characteristics, allows for increased coating thickness on parts requiring heavier coatings..

TYPICAL DEPOSIT

CHARACTERISTICS:

- Typical Hardness HRC 40-45
- Bond Strength 6500 psi
- Deposit Rate 10 lbs /hr/100A
- Deposit Efficiency 70%
- Wire Coverage 0.8 oz/spft² /mil
- Surface Texture *Variable
- Corrosion Resistance 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:

- Paper Roll
- Parts Restoration

CHEMICAL COMPOSITION (wt%):

Cr	C	Mn	Si	Ni	Fe
13.0	0.35	0.6	0.5	0.5	Bal

RECOMMENDED SPRAY PARAMETERS:

Diameter	Air Pressure	Voltage	Amperage	Standoff
1.6mm	50 - 60 psi	28 - 30	100 - 200	4 – 6 in (10- 15cm)

* 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