PRODUCT DATA SHEET

Date: 1/24/14
Product: Ni 4 Al, 95/5
Spec: Arc Spray Wire

DESCRIPTION

WWNi4Al ARC SPARY WIRE is a solid wire specifically designed for arc spray systems. It is self-bonding to most materials and requires minimal surface preparation. Bond strengths in excess of 9000 psi can be achieved on clean smooth surfaces. Roughening of the surface by machining, grit blasting or grinding can increase the bond strength up to 9800 psi. WWNi4Al ARC SPARY WIRE exhibits good resistance to high temperature oxidation and abrasion, and excellent resistance to impact and bending. WWNi4Al ARC SPARY WIRE can be machined and ground to a finish of 5 micro inches. It is a self-bonding, one step material and is also suitable for the build-up and dimensional restoration of nickel based alloys. WWNi4Al ARC SPARY WIRE is widely used as a bond coat for subsequent thermal spray topcoats and as a one step build up material for dimensional restoration of aircraft engines.

TYPICAL DEPOSIT CHARACTERISTICS:

✔ Typical Hardness	HRB 75	✔ Wire Coverage	0.9 oz / ft² / m
✔ Bond Strength	9500 psi	✔ Surface Texture	*Variable
✔ Deposit Rate	10 lbs / hr / 100A	✔ Machineability	Good
✔ Deposit Efficienty	70%		

* Depends on air pressure used.

APPLICATION

✔ Bond Coat

✔ Dimensional Restoration

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.

SPECIFICATION:

95Ni 5Al, 95/5, Ni4Al, NiAl, Nickel-Aluminum
PWA 36937 for PWA 271-37 Rev H,
GEAEC07-042 for GE SPM 70-49-38,
B50TF56-S11/CL A (Chem only),
CFMI CP6039 for 70-48-14, Honeywell FP5045,
Type XV Nickel Aluminum

NOMINAL CHEMICAL COMPOSITION (wt %):

Al	Ni
5.0	Bal

RECOMMENDED SPRAY PARAMETERS:

Diameter	Air Pressure	Voltage	Amperage	Standoff
1/16" (1.6mm)	*50 - 60 psi	*29 - 32	*100 - 200	*4 - 8 in (10 - 20cm)

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

WeldWire Company, Inc. 103 Queens Drive King of Prussia, PA 19406
Phone: (610) 265-3555 Toll free: (800) 523-1266 Fax: (610) 265-7806

If additional information is needed please contact Weld Wire Company at (800) 523-1266