

WISDOM Thermal Spray Consumables

Nickel base alloy



NiAl80/20

DATA SHEET

November 2015

Introduction

Nickel clad aluminum exothermic coating powder, and the substrate with high strength, mainly used for spraying primer coating having oxidation resistance; but also as a work piece surface coating or repair. And ordinary carbon steel, alloy steel, stainless steel, nitriding steel, cast iron, cast steel, nickel, magnesium, zirconium, titanium, Monel, nickel-chromium alloy can achieve a good metallurgical bond micro.

Surface Perparation

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.

Typical Deposit Characteristics:

- Typical Hardness HRB 60-75
- Bond Strength 9100 psi
- Deposit Rate 10 lbs /hr/100A
- Deposit Efficiency 70%
- Wire Coverage 0.9 oz/ft² / m
- Surface Texture *Variable
- Machine ability Good

Application

- Bond Coat
- Dimensional Restoration

MominalChemicalComposition

(wt%)

Al Ni
20 Bal

SPECIFICATION

80Ni 20Al

RECOMMENDED SPRAY PARAMETERS

Diameter	Air Pressure	Voltage	Amperage	Standoff
3.17mm	*50 - 60 psi	*29 - 32	*100 - 200	*3 - 6 in (8 - 15cm)

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

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STANDARD SIZES & PACKAGING

Diameter	Dimension Tolerance	Packing	Wire Weight
2.0mm	+0/-0.05	Coil Form/Spool	10-100kgs/coil 5kgs(11 lbs)/spool
3.0mm	+0/-0.05	Coil Form/Spool	10-100kgs/coil 5kgs(11 lbs)/spool
1/8"(3.17mm)	+0/-0.05	Coil Form/Spool	10-100kgs/coil 5kgs(11 lbs)/spool