

Water Atomized Nickel, Chromium, Boron and Silicon Thermal Spray Powder

TeroJet[®] 55 396

HVOF Powder



COATING

- May be used as sprayed or spray and fused for superior bonding to base metal
- Very good abrasion resistance
- May be used with some non-hvof application systems
- Hard, dense coatings with excellent corrosion resistance



DESCRIPTION:

TeroJet 55 396 is a water atomized Nickel Chromium Boron Silicon alloy powder designed specifically for application via thermal spraying. The powder may be applied using HVOF, low velocity combustion or plasma NTA systems.

Coatings of 55 396 may be used in the as-sprayed condition or subsequently fused with a heating torch. The fusing operation will densify the coating and will produce metallurgical bonding to the base metal. For applications where it is desirable to use the coating in the as-sprayed condition, then HVOF is the preferred method of application. The coatings produced are hard, dense and will exhibit high bond strengths to a wide variety of base metals. Eutectic 55 396 coatings offer excellent resistance to abrasion and hard particle erosion.

TECHNICAL DATA:

COATING PROPERTIES:

Hardness / R15N: 87-88 (HRC 54-56 converted)

Bond Strength: >5,000 psi (ASTM C633)

Porosity: < 3 %

Oxides: < 2%

Coating Density: 7.5 g/cc

Service Temperature: 1200° F / 650° C (Max)

As-Sprayed Roughness: 200 micro-inches AA

As-Ground Roughness: < 20 micro-inches AA

As-Ground and Lapped: < 5 micro-inches AA

POWDER PROPERTIES:

Nominal Composition: Nickel
Chromium
Silicon
Boron
Carbon
Iron

Melting Point: 1875° F (1023° C)

PROCEDURES FOR USE:

FINISHING PROCEDURE:

Coatings of 55 396 may be finished by grinding using silicon carbide wheels with flood coolant. Follow the tool manufacturer's recommendations for speeds and feeds.

TYPICAL APPLICATIONS:

- Pump Shafts
- Wear Rings
- Seals
- Compressor Rods
- Chrome Plate Replacement Applications
- Brick Dies

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