

Gas Atomized, Nickel-Chromium Alloy Made for the Thermal Spray Process

# **TeroJet<sup>®</sup> 55 125**

## **HVOF Powder**



# **COATING**

- Oxidation resistant up to a temperature of 1600° F
- Resistant to mild abrasion
- May be used with some non-hvof application systems
- Hard, dense coatings with excellent corrosion resistance



## DESCRIPTION:

TeroJet 55 125 is a gas atomized Nickel Chromium alloy powder designed specifically for application via thermal spraying. Optimum coating results will be achieved using HVOF. However, 55 125 powder may also be applied using high energy, low velocity combustion or plasma NTA systems.

Each lot of powder is subjected to extensive quality checks to insure a consistent particle size distribution. The chemical composition is comparable to AWS A5.14 class ERNiCrMo-3. The HVOF coatings produced are suitable for a wide range of applications requiring resistance to alkaline, acidic and aqueous salt environments. Coatings of 55 125 are oxidation resistant up to a temperature of 1600° F.

## TECHNICAL DATA:

### COATING PROPERTIES:

Micro Hardness: 650 DPH 300g  
Hardness / R15N: 78 (HRC 35 converted)  
Bond Strength: >5,000 psi (ASTM C633)  
Porosity: < 3 %  
Oxide Content: < 2%  
Coating Density: 8.1 g/cc  
Service Temperature: 1600° F / 871° C (Max)  
As-Sprayed Roughness: 200 micro-inches AA  
As-Ground Roughness: < 40 micro-inches AA  
As-Ground and Lapped: < 10 micro-inches AA

### POWDER PROPERTIES:

Nominal Composition:  
Chromium  
Molybdenum  
Carbon  
Iron  
Nb + Ta:

Hall Flow: 16-19 Seconds / 50 g

## PROCEDURES FOR USE

### FINISHING PROCEDURE:

Coatings of 55 125 may be finished by machining using carbide tools. Use flood coolant and do not overheat the coating. A finer finish is possible by rough machining using carbide tools followed by grinding. Follow the tool manufacturer's recommendations for speeds and feeds.

### TYPICAL APPLICATIONS:

- Pollution Control Equipment
- Paper Mill Digesters
- Chemical Process Equipment
- High Temperature Environments
- Dimensional Restoration of Alloy 625 Turbine Parts
- Pump Shafts

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