

Chromium Carbide, Nickel Chromium Powder Made for the Thermal Spray Process

# **TeroJet<sup>®</sup> 55 575**

## **HVOF Powder**



# **COATING**

- Excellent for hard chrome plating replacement
- Very good abrasion resistance
- May be used with some non-hvof application systems
- Hard, dense coatings with excellent corrosion resistance



## DESCRIPTION:

TeroJet 55 575 is an agglomerated and sintered Chromium Carbide-Nickel Chromium Alloy powder designed specifically for application via thermal spraying. Optimum coating results will be achieved using HVOF. However, 55 575 powder may also be applied using plasma NTA systems.

Each lot of powder is subjected to extensive quality checks to insure a consistent particle size distribution and chemical composition. The powder is essentially spherical in shape. The HVOF coatings produced are hard, dense and will exhibit high bond strengths to a wide variety of base metals. Exceptional resistances to fretting, abrasion, oxidation and high temperature corrosion can also be expected.

## TECHNICAL DATA:

### COATING PROPERTIES:

Micro Hardness: 900-1000 DPH 100g  
Hardness / R15N: 87-89 (HRC 53-57 converted)  
Bond Strength: > 10,000 psi (ASTM C633)  
Porosity: < 3 %  
Coating Density: 6.4 g/cc  
Service Temperature: 1500° F / 815° C (Max)  
As-Sprayed Roughness: 175 -200 micro-inches AA  
As-Ground Roughness: < 10 micro-inches AA  
As-Ground and Lapped: < 5 micro-inches AA  
Wear Resistance: 25-28 x 10<sup>-3</sup> mm<sup>3</sup> volume Loss  
(ASTM G65, Sch. A)

### POWDER PROPERTIES:

Nominal Composition: Chromium Carbide  
Nickel Chromium  
Bulk Density: 2.9-3.4 g/cc<sup>3</sup>

## PROCEDURES FOR USE:

### FINISHING PROCEDURE:

Coatings of 55 575 may be finished by grinding using silicon carbide wheels with flood coolant. Diamond wheels or belts may be used as an alternative. Follow the tool manufacturer's recommendations for speeds and feeds.

### TYPICAL APPLICATIONS:

- Marine and Truck Diesel Valve Stems
- Chrome Plating Replacement Applications
- Compressor Rods
- Hydraulic Cylinders
- Ball Valves
- Sucker Rods



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