

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

TeroJet[®] 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 10⁻³ mm³ volume Loss
(ASTM G65, Sch. A)

POWDER PROPERTIES:

Nominal Composition: Chromium Carbide
Nickel Chromium
Bulk Density: 2.9-3.4 g/cc³

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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EUTECTIC CORPORATION
N94 W14355 Garwin Mace Drive
Menomonee Falls, WI 53051 USA
Tel.: +1 (800) 558-8524
eutectic.com

EUTECTIC CANADA
428, rue Aimé-Vincent
Vaudreuil-Dorion, Québec
J7V 5V5 Canada
Tel.: +1 (800) 361-9439
eutectic.ca

